

AN
ESSAY
ON THE
CAUSES OF THE VARIETY
OF
COMPLEXION AND FIGURE
IN THE
HUMAN SPECIES.

TO WHICH ARE ADDED,

Animadversions on certain Remarks made on the first edition
of this Essay, by Mr. Charles White, in a series of
Discourses delivered before the Literary and
Philosophical Society of Manchester
in England.

ALSO,

Strictures on Lord Kaims' Discourse on the Original
Diversity of Mankind.

AND

AN APPENDIX.

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of the American Philosophical Society.

THE SECOND EDITION....ENLARGED AND IMPROVED.

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District of New-Jersey, ss.

BE IT REMEMBERED, that on the twenty-sixth day of November, in the thirty-fifth year of the Independence of the United States of America, JOSIAH SIMPSON and CHURCHILL HOUSTON of the said district, have deposited in this office the title of a book, the right whereof they claim as proprietors, in the words following, to wit, "An Essay on the Causes of the Variety of Complexion and Figure in the Human Species. To which are added, Animadversions on certain remarks made on the first edition of this Essay, by Mr. Charles White, in a series of Discourses delivered before the Literary and Philosophical Society of Manchester in England. Also, Strictures on Lord Kaimes' Discourse on the Original Diversity of Mankind. And an Appendix. By Samuel Stanhope Smith, D.D. L.L.D. President of the College of New-Jersey; and Member of the American Philosophical Society. The second edition—Enlarged and improved." In conformity to the act of the Congress of the United States, entitled, an act for the encouragement of learning, by securing the copies of maps, charts, and books to the authors and proprietors of such copies, during the times therein mentioned; and also to the act, entitled, an act, supplementary to an act, entitled an act for the encouragement of learning, by securing the copies of maps, charts, and books to the authors and proprietors of such copies during the times therein mentioned, and extending the benefits thereof to the arts of designing, engraving, and etching historical and other prints.

ROBERT BOGGS, Clk. of the
District of New-Jersey.

Dedication.

To the American Philosophical Society held in Philadelphia, for promoting Useful Knowledge.

Gentlemen,

THE substance of the following Essay was, in consequence of a duty devolved by you upon the Author, pronounced in the form of an oration, before your very respectable body on the 27th of February in the year 1787. As you were pleased to express your satisfaction with it, and it has been received with a considerable portion of public favour both in America and Europe, I have been encouraged, in the midst of my other numerous and indispensable avocations, to turn my attention lately to enlarge and improve it. It comes, therefore, in its new form, to pay its homage to you to whom it owes its existence ; and, if it should again be found worthy of your approbation, to solicit your patronage.

I am, Gentlemen, with the profoundest respect for you individually, and as a society devoted to promote the interests of Philosophical Science in this new world,

Your most obedient,

and most humble servant,

SAMUEL STANHOPE SMITH.

Advertisement.

ALTHOUGH the following essay may seem, at first view, to propose nothing to itself but to amuse the public with a philosophical speculation; yet as its object is to establish the unity of the human species, by tracing its varieties to their natural causes, it has an obvious and intimate relation with religion, by bringing in science to confirm the verity of the Mosaic history. It has lately become a kind of cant with certain superficial smatterers in physical science to speak of revealed religion, and of the spirit of piety as being hostile to profound researches into nature, lest they should be found to contradict the dogmas of revelation. We see these men, likewise, with equal ignorance and vanity, contemptuously insinuate that the friends of piety are always ready to rest their opinions, not on well ascertained facts, but on the supposed authority of Heaven, to save them the pains, and the hazard of enquiries so dangerous to contented superstition. These self-dubbed naturalists, vain of their own faint shadow of knowledge, because they know so little, seem to have forgotten the existence of such men as Newton, or Boyle, Bacon or Mede, and a thousand others, equally distinguished for the depth of their enquiries into the mysteries of nature, and for their sublime and fervent piety towards its Author. Genuine philosophy has ever been found the friend of true religion. They are only spurious pretences

to science which have wantonly arrayed themselves against the holy scriptures. In a question of that nature which is discussed in the following essay, I would be far from introducing the authority of religion to silence enquiry, and equally far would I be from making it a substitute for proof. I appeal to the evidence of facts, and to conclusions resulting from these facts which I trust every genuine disciple of nature will acknowledge to be legitimately drawn from her own fountain.

If any person should enquire why a writer who has so many other duties to fulfil more immediately relative to the sacred functions of his profession, should devote so much time to studies which seem to be only remotely connected with the offices of piety peculiarly belonging to a christian minister, I hope it will be a satisfactory answer; that infidelity, driven from all her moral grounds of objection against the gospel, has lately bent her principal force to oppose the system of nature to that of revelation. From Natural Science, which has been cultivated with more than common ardor and success in the present age, she now forms her chief attacks against the doctrines, and the history of religion. And on this quarter she has pressed them with the greatest zeal. While others, therefore, are successfully defending the interior fortresses of religion, and extending her practical sway over the hearts of men, I thought that I might render a valuable service to the cause, by cooperating, in some degree, with those who are defending her outworks, and carrying their attacks into the enemy's camp. I have taken one point of defence, which was thought to be peculiarly vulnerable. And though certain artists may feel indignant, that a writer, whose pursuits are

naturally supposed to be so widely different from theirs, should invade them in their own department, yet I hope the issue of the conflict will shew that religion has been able to repel one more assault, if she should not, in this instance obtain a decided victory.

This essay was first published in the year 1787. And although various writers had, at different times, treated on the same subject, it was esteemed by many ingenious and learned men not to be a superfluous addition to the disquisitions which had already appeared.—Jerome Berioit Feijoo, a Spanish Benedictin, of whom the editors of the *Theatro Critico*,* as well as the authors of the Modern Universal History,† have pronounced the highest eulogies, as not being inferior to Cervantes in genius, and in the useful labor of destroying the prejudices of his countrymen, had entered on the question to considerable extent, and made many valuable and scientific observations on the influence of climate. He has not, however, carried his principles on that subject so far as is done in the essay; many important considerations he has omitted; and the effects resulting from the state of society he has scarcely touched.

Dr. Blumenbach, one of the most celebrated naturalists, anatomists, and physicians of Germany, published in the year 1795, at Gottingen, the third edition, the only one which I have seen, of his famous treatise, *De generis humani varietate*

* Published in Vols. 14. Ann. 1742. Berioit Feijoo died in 1765.

† Vol. 9. p. 611.

waitoa. Of this work I could consequently make no use in my first edition. I believe it had not then come to the public eye: But I am happy to find that the ideas of this learned writer on *the subject of climate*, and, particularly, on *the effect of the bilious secretion on the colour of the skin*, have so nearly corresponded with those which I had previously adopted. And I have not thought it improper, in the present edition, to avail myself of several elucidations of my subject from this valuable treatise. But I have to observe that he, like Feijoo, has almost wholly omitted the second topic which I have endeavoured to illustrate, *the influence of the state of society in multiplying the varieties of mankind*, which in this essay occupies so prominent a place.

A short treatise also of the celebrated Camper's upon this subject was published at Utrecht by his son in 1791. But it is formed on a plan, not contradictory indeed to that which I have adopted, but so different from it in its object, and the mode of conducting it that, if it had been published much earlier, I could have derived little aid from it. After a few general remarks at the beginning, the remainder of his ingenious dissertation, which, however, is combatted, in some of its most important principles, by Blumenbach, is calculated rather for painters than for the great body of even sensible, and well informed readers.

To the former edition I annexed some strictures on Lord Kaimes' dissertation *on the original diversity of mankind*. Besides these, which I have thought proper to retain in the present, I have added some animadversions on certain remarks made on that edition, and on the general subject, by Mr.

Charles White, in a series of discourses delivered by him before the literary and philosophical society of Manchester in England ; and published in London in Quarto in 1799.

The whole I now commit to the judgment and candor of the literary and philosophic world.

S. S. SMITH.

ESSAY, &c.

ON THE VARIETY OF COMPLEXION, FIGURE, &c.
IN THE HUMAN SPECIES.

THE unity of the human race, notwithstanding the diversity of colour, and form under which it appears in different portions of the globe, is a doctrine, independently of the authority of divine revelation, much more consistent with the principles of sound philosophy, than any of those numerous hypotheses which have referred its varieties to a radical and original diversity of species, adapted by the Creator, or by the necessary laws of the material world, to the respective climates which they were destined to inhabit. As there are several species of animals which seem to be confined by the physical laws of their constitution to a limited range of climate, and which either cannot exist, or do not attain the perfection of their nature, in regions either much farther to the

North or to the South than those in which the Creator has planted them, superficial observers have been ready to conclude, from analogy, that different species of the human kind must have been originally circumscribed, by the forming hand of nature, within certain climatical limits, in which she has placed them, whence have sprung those varieties in external aspect, and in mental endowments, which distinguish the respective tribes of men from one another. But in contradiction to this principle, experience demonstrates that man is not exclusively confined in his range to any definite lines upon the earth. Although the fineness of texture, and delicacy of organization of the human constitution, renders it extremely susceptible of the impressions of climate, as well as of all other causes which act upon the animal frame, its peculiar flexibility, at the same time, enables it to adapt itself with wonderful facility, and without materially injuring the organs of life, to every degree of temperature from the extreme heats of the torrid, to the perpetual rigors of the frozen zone. We see commerce and war, ambition and avarice, transfer the same people to every clime upon the globe; and the American and European sailor reside equally at the pole, and under the equator.

While the spirit of fanaticism carries the sun-burnt Saracén to the North, the love of war, and of plunder transplants the Tartar from the snows of Scythia to the burning plains of India.—Why then should we, without necessity, assume the hypothesis that originally there existed different species of the human kind? And not only without necessity, but contrary to the principles of true philosophy, since all its varieties may be accounted for, which I hope to demonstrate in the course of this essay, by the known operation of natural causes.

Different species must be subject to different laws both in the physical and moral constitution of their nature. The whole philosophy of man, therefore, is confounded by that hypothesis which divides the *kind* into various *species*, radically different from one another. The laws of morals designed to regulate the mutual intercourse of mankind, we derive from examining our own nature, or collecting the common sentiments of men in society, united together by a common system of feelings and ideas. But how shall we apply rules, derived from these sources, to different nations, and to different individuals whose moral principles, resulting, in like manner, from the constitution of their natures, respective-

ly, may be as various as their several aspects. Can they, indeed, be universally applied to fix an invariable moral code even for the same nation in different ages, after conquest, or commerce may have produced among them the most complicated mixture of species? *Varieties* may be created in the same species either in the animal or vegetable kingdom, by varying their culture, and, sometimes, by transferring them to a different soil, or climate; but to all these varieties, where there is no radical diversity of *kind*, the same general laws will still apply. To man, in like manner, may be applied the same general principles of moral and physical action, if it be ascertained that all their differences indicate only one original species. But, destroy this unity, and no certain and universal principles of human nature remain. We have no general and infallible standard by which to judge of the moral ideas and habits of different nations, or even of different men.—Besides, if human nature actually embraces different species of men, by what criterion shall we distinguish them? What is their number? Where do they now exist pure and unmixed?—

Philosophers have never been able to give to these questions such precise and definite solutions as are

sufficient to satisfy an inquisitive and discriminating mind. That criterion of identity of species first suggested by the English naturalist, Ray, and afterwards more largely insisted on by Buffon, has been, since his age, most generally received; that is, the power of procreating an offspring, that shall be itself endued with similar prolific powers. The horse and the ass can produce a mule; but the mule being barren, shews that the sire and dam are of different species. It is acknowledged, however, that experiments on the procreative virtue of animals, never have been, and probably never will be made, in sufficient number, or with sufficient accuracy, to establish the criterion of Ray and Buffon as a certain and universal fact. If it were entitled to the rank of an incontrovertible principle in natural science, there could no longer be any doubt concerning the unity of the human species under all the various forms and appearances in which it has existed in the different regions of the globe.

Dr. Blumenbach observes that "animals ought to be ranked in the same species when their general form and properties resemble one another, and the differences which subsist among them may be derived from some degenerating cause." According to

this principle, if it be admitted, those only are to be esteemed of different species whose distinctive properties are so essential to each respectively, and so inherent in them, that they cannot be changed, or their differences accounted for, by the known operation of any physical, or moral causes. If this, then, be received as the acknowledged criterion of diversity of species, I doubt not being able to demonstrate, in the progress of this essay, that all the varieties of men may have sprung from the same original stock. To whichever criterion, therefore, we appeal, the same conclusion will result.*

* It is amusing to see the critical reviewers in England, in their remarks on the first edition of this essay, attach so much importance, as they do, to a frivolous and dubious disquisition respecting the proper criterion of a distinct species, which could lead to no other result, by their own confession, than this, that no accurate criterion has ever been discovered by philosophers. If that be so, surely a discussion of the question, merely as an exhibition of learning in Natural Science, could have been of little importance towards an elucidation of the subject.—“So loose and inconclusive is his reasoning, say they, that he has never enquired what really constitutes a different species. In botany, it is preserving the general and essential characters in changes of situation, and losing, in time, the accidental differences which climate and culture have produced. In animals, where the distinction ought to have begun, it has been neglected, [viz. by Naturalists]. If the production of a fertile off-

The hypothesis that the human kind is divided into various species, radically different from one another, is commonly connected in the systems of philosophers with another opinion, which, however general the assent be which it has obtained, is equally contrary to true philosophy, and to the sacred history; I mean the primitive and absolute savagism of all the

spring be the criterion of the sameness of the species, men are, undoubtedly, of the same species. But this distinction is found to be fallacious, particularly in domestic animals. And, if carefully examined, we shall find that, in zoology, the species are not, in reality, ascertained with accuracy. We must, then, at last, refer to the botanical distinction.”—Now what elucidation could my subject have received from such learned remarks, which leave the question in the same uncertainty in which they found it? “In zoology, they say, no criterion has been ascertained with accuracy;”—therefore they will apply to animals that which botanists have fixed for plants.—Be it so. It differs not much from that which Dr. Blumenbach proposes both for plants and animals. And, agreeably to this criterion, it is the whole object of the essay to deduce the varieties of men, or to account for them, from what the Doctor calls degenerating causes;—or, to shew, according to the botanical standard of the Reviewers, that men in all climates, “preserve the general and essential characters of the race, and will lose, in time, the accidental differences which climate, and *culture, or the habits of living, and various states of society*, have produced in them.” With what success this has been done I cheerfully leave to the philosophic reader to determine.

tribes of men. A few observations on this opinion calculated to demonstrate its utter improbability, if not its obvious falsehood, will not, I presume, be deemed impertinent to the object of the following essay ; which is to confirm the doctrine of the unity of the human race, by pointing out the causes of its variety. As this argument, however, rests on an entirely different kind of proof, and is only incidentally related to my principal design, I shall present it to the reader with the greatest brevity. And I trust it will not be found to be an argument so trite, or so unimportant, as to render it, on either account, unworthy his serious attention.

The original, and absolute savagism of mankind, then, is a principle which appears to me to be contradicted equally by sound reason, and by the most authentic documents which remain to us of ancient history.* All the earliest monuments of nations, as far as we can trace them, fix their origin about the middle regions of Asia, and present man to us in a

* The argument from history will be found handsomely illustrated by Mr. David Doig of Sterling in Scotland, in three letters addressed to Lord Kaimes, and published in one small duodecimo volume.

state already civilized. From this centre we perceive the radiations of the race gradually shooting themselves towards every quarter of the globe. Savage life seems to have arisen only from idle, or restless spirits, who, shunning the fatigues of labor, or spurning the restraints and subordinations of civil society, sought, at once, liberty, and the pleasures of the chase, in wild, uncultivated regions remote from their original habitations. Here, forgetting the arts of civilized life, they, with their posterity, degenerated, in a course of time, into all the ignorance and rudeness of savagism, and furnished ample materials to the imagination of the poets for the pictures they have presented to us of the abject condition of the primitive men. But let us consult reason, as well as history, for the truth, or probability of their pictures.

Hardly is it possible that man, placed on the surface of the new world, in the midst of its forests and marshes, capable of reason, indeed, but without having formed principles to direct its exercise, should have been able to preserve his existence, unless he had received from his Creator, along with his being, some instructions concerning the use and employment of his faculties, for procuring his subsistence, and in-

venting the most necessary arts of life. Nature has furnished the inferior animals with many and powerful instincts to direct them in the choice of their food, and with natural instruments peculiarly adapted to enable them, either by climbing the forest tree for its fruits, or by digging in the earth for nutritious roots, to obtain it, in sufficient quantities for the sustenance of life. But man, destitute of the nice and accurate instincts of other animals, as well as of the effectual means which they possess of procuring their provision, must have been the most forlorn of all creatures, although destined to be lord of the creation; unless we can suppose him, like the primitive man of the sacred scriptures, to have been placed in a rich garden which offered him, at hand, its abundant and spontaneous fruits. Cast out, an orphan of nature, naked and helpless, into the savage forest, he must have perished before he could have learned how to supply his most immediate and urgent wants. Suppose him to have been created, or to have started into being, we know not how, in the full strength of his bodily powers, how long must it have been before he could have known the proper use of his limbs, or how to apply them to climb the tree, and run out upon its limbs to gather its fruit, or to grope in the earth for

roots, to the choice of which he could not be led by his smell, and for the collection of which the human hand, especially in its soft, and original state, is most imperfectly adapted. Very inadequate must have been the supply obtained by these means, if a supply could have been obtained at all, for wants the most pressing and importunate in our nature, and for appetites the calls of which, in such a state, wherein its supplies must always be both scanty, and difficult to be procured, could never be intermitted. We are prone to judge of the mental powers of such a being, in the first moments of his existence, by the faculties which we perceive in ourselves, or observe among savages with whom we are acquainted, whose minds have been, in a degree, improved and strengthened by experience. The American savage, for example, has been taught from his infancy the necessary arts for supplying his wants. But the primitive man, if we suppose him to have received no communication of knowledge from his Creator, and to have been abandoned merely to his own powers, without the least aid from experience, or instruction, would have been nothing but a large infant. Reason, the supreme prerogative of our nature, and its chief distinction from that of the inferior animals, could have

availed him little in that emergency. It would have required, in order to its exercise, a knowledge of principles, and of the nature of the objects around him, which could have been the result only of time, and a certain degree of experience. In the mean time, that recent mass of organized matter, called a man, would probably have perished.*

* If it be asked how those few wild men, who, at different times, have been found in the forests of Europe have preserved themselves, if, as has been conjectured, they were exposed in infancy?—I believe rather that they have been lost in the forests after the period of infancy and childhood, and when they had already acquired some knowledge of the manner of gathering certain fruits, and, perhaps, of taking by art the smaller species of game. The youth who, not long since, was found in a wood in France, appeared, by a scar which he had upon his person, to have been one of those victims who escaped from the knife of the fanatical revolutionists, while probably his parents were murdered, or were obliged to leave him in their flight. However this may be, he, and all the others who have been found in similar situations, have been so affected, probably with terror when they found themselves abandoned, that they seem to have been bereft of a great portion of the native powers of intellect, and rendered incapable of the ordinary exercises of reason. They resembled brutes more than men. Attentive only to the calls of hunger, and the objects with which they were accustomed to satisfy that appetite, they seemed to be capable of no other ideas. They could not be made to understand the advantages, nor relish the habits of civilized life. And whenever they could escape from their keepers, were ready, like the wildest animals,

But, if we believe that, in this deplorable condition, he could have found means to sustain life, man, originally a savage, and a savage in the most abject state in which it is possible for human nature to exist, must have remained a savage for ever. Urged by the most pressing wants of nature, for which all his exertions, undirected by skill, and unassisted by the natural arms which other creatures possess, could have furnished but a scanty supply, and which, therefore would have never ceased one moment to harass him, he would not have enjoyed leisure to invent any of those arts which enter into the first elements of civilized life. An importunate appetite, with brutal impulse, would have so continually precipitated him from object to object in order to gratify its cravings, that he could have redeemed no portion of his time for contemplating the powers of nature, or for combining his observations in such a manner as to apply those powers in ingenious inventions, for an-

to dart into the forests again. These miserable beings, and not a modern savage who has derived a few arts from his ancestors, and they, at some remote period, from a more civilized people, are the proper types of the primitive man thrown like a helpless and abandoned infant from the hand of his Creator, upon the wild and desolate surface of the new world.

icipating his wants, or for facilitating their supply. If he could indulge a moment's repose from the importunity of hunger, it would be to resign the next moment to absolute inaction, like a satiated beast in his den. The character of a savage is infinitely improvident. Nothing he abhors so much as labor, when he is not under the immediate impulse of some imperious appetite, or passion. The American savage, who possesses many advantages above the primitive man whom we are contemplating, as soon as he is released from the fatigues of the chase, generally gives himself up to listless and gloomy indolence. And, though he has derived from his ancestors, who probably emigrated from different regions in the old world, the rudiments of the arts of hunting and fishing, which might have been expected to lay a foundation for a further progress in improving the comforts of his condition; yet with these rude and scanty arts the indolent genius of savagism has been contented; and, during three centuries since America was first discovered by Europeans, he has not been known to advance a single step in the amelioration of his state. Even in those situations in which he has had the most favourable opportunities to observe the benefits resulting from agriculture and the me-

chanic arts, in augmenting the conveniences and comforts of living, he has never profited by the example. He regards the labors of the field, and the work-shop, as an intolerable servitude to men who have it in their power to enjoy the range of the forest; and, after the sports of the chace, to recline themselves in indolent repose. To a few of the aboriginal tribes who would permit it, the government of the United States, with a laudable concern for the interests of humanity, has endeavoured to extend a benevolent patronage, with a view to raise them, if possible, above their present rude and savage condition. But it has found the greatest difficulty in introducing among them only two or three of the simplest arts of civilized society. And only two or three of those tribes have hitherto been induced to admit the smallest change in their habits of life. The love of complete personal independence, and the abhorrence of every species of restraint so natural to the savage, would for ever prevent him, when left to his own native impulses, and not encouraged, assisted, and directed, and, in some measure, controled, by extraneous and superior power, from making even the first advance in the career of civilization. But if any philosopher pretends that, in the natural pro-

gress of things, a savage tribe, cut off from all communication with more polished nations, will, by the efforts of their own genius, invent, and gradually perfect the arts of civilized life, let him point out the instance. Following the lights of history, we frequently see rude and barbarous people prompted and assisted in their progress to refinement by the example and influence of nations who have advanced far before them in this career. The Greeks were polished by the Asiatics, and Egyptians; the Italians by the Greeks, and by colonies from the Lesser Asia; and Italy extended her arts to Germany and Gaul. But history presents to us no tribe originally and perfectly savage who has voluntarily sought from abroad, and introduced among themselves the manners, and the arts of any civilized nation; much less has invented those arts, and cultivated those manners, from the operation of any causes arising solely within themselves, or any tendencies in human nature, while existing in such a state of society, towards further improvement. The unsuccessful efforts of the United States to introduce among the tribes of savages, who skirt along our western frontiers, only a few of our arts, most obviously tending to their own advantage, demonstrate that the genius of savagism

is obstinately opposed to the labours, the restraints, and industrious habits required in civilized society. Hardly has any individual savage ever been induced to adopt our manners. Such, on the other hand, is the charm of their wandering and independent state, the pleasure of alternately pursuing their game, and reposing in indolence, that many of the citizens of the United States are found voluntarily to renounce all the conveniences of civilization to mingle with the savages in the wilderness, giving the preference to their idle and vagrant habits of life.—Two striking and practical examples which demonstrate, on one hand, with what facility civilized man sinks into the savage, especially in those circumstances which so frequently offered themselves to restless and idle spirits in the early periods of the world ; and on the other hand, what difficulties, almost insurmountable, the savage state opposes to the ascent of human nature, in the contrary progression towards the cultivation of the arts of civilized life.

If such is the genius and character of savagism, as it appears in the aboriginal tribes of America, how much farther removed from the first elements of

civilization must have been those primitive species of men, contemplated by this hypothesis;

Qui prorepsērunt primis animalia terris,
Mutum et turpe pecus, glandem atque cubilia propter
Unguibus et pugnīs, pugnantia ?—*

HOR. Sat. lib. 1. Sat. iii. lib. 98.

Compared with such beings the American indian may be considered as an artist, and a sage. Compared with their hands, the only instruments afforded them by nature to dig into the earth for a miserable subsistence, the bow and the hook may be regarded as high and noble inventions. By such men, impelled by incessant and importunate wants; urged by the perpetual clamors of appetite; having their mental powers almost annihilated by the rudeness and miseries of their state, in which they could enjoy no leisure for meditation, no composure for reflection, no comparison of sentiment with others; and brutalized in all their faculties, their habits, and their tastes, it would have been impossible that one principle of science should have been discovered, or one liberal art ever have been invented. The existence of

* “Who crept forth like beasts from the fresh earth, a mute and filthy herd, fighting with fists and nails, for their acorns and their dens.”

civilized society in the world is a proof that man was never in such an abject state. Infinitely more wretched than those animals which provide by instinct for their subsistence, and accommodation, and are furnished with natural arms for the purpose, adapted to their respective states, a thousand ages would not have been sufficient to raise them to the art of the beaver.

Besides, uncivilized man is a lazy, improvident, and filthy animal: If he has food for the present day, nothing is able to rouse him to industry. Contented, and even pleased with filth, because in that state he feels himself more perfectly at ease, for even the attentions of cleanliness are a constraint to a savage, he feels no motive to desire any accommodation beyond what he is compelled by necessity to seek. Men with such dispositions will be for ever stationary in whatever condition they may happen to be placed. Ages will elapse, as we have already seen in the North-American savages, and to them we may add all the independent tribes of the southern continent, without making a single effort to ameliorate their condition.* Nothing but the controlling influence of some

* The population of Mexico and Peru, as will hereafter be shewn, has every appearance of having been originally derived

civilized power could ever induce a savage to wield a spade, or guide a plough. And all the ages of time would not be sufficient to teach him to separate from the ore, and to prepare, the metal of which those instruments are made.*

from nations who had antecedently made some progress towards civilization.

* There can hardly exist a doubt in the minds of those who have had an opportunity of intimately observing the manners, and disposition of savages, but that it is absolutely impossible that they should ever discover and separate the iron from its ore, and render it malleable and fit for use. This requires a train and a kind of observation and reflection to which the savage is utterly incompetent. To say, as has been said, that an accidental fire in the woods in Mount Ida, or any other mountain, or that the eruption of a volcano, might throw out the metal in the form of cast iron, indicates as little reflection, and knowledge of the subject as savages themselves possess. Volcanos, which cast up lava, and fragments of stone in great abundance, have never been known to throw out smelted iron. And the fires which at any time are kindled in forests, an event which frequently happens in those of America, where mines of iron abound, never have a heat strong enough, or sufficiently concentrated to smelt the softest metals.—Indeed, if an indian had found a piece of cast-iron he would have known as little what to do with it as with the ore. The process for rendering it malleable could never have entered his thoughts. And no accidental effect of the small fires kept in his hut, or wigwan, could possibly have disclosed it to him.—Ever since the Europeans arrived on the American continent, the natives have been ac-

A just philosophy, therefore, grounded on fact and experience, will lead us to the conclusion which the sacred scriptures propose as an elementary principle of our belief; that man, originally formed by a wise and beneficent Creator, was instructed by him in the duties, and the most necessary arts of life. Thus were laid, in the very commencement of the race, the foundations of domestic, social, and civil order. From the primitive man, thus instructed, have descended the various tribes of men upon the earth; and from him have been derived to his posterity, both the elements of religion which we perceive diffused through the original traditions of all nations, and the principles of the useful arts which we find cultivated among them from the earliest dawn of history.

quainted with iron, and have seen various instruments formed of that metal: yet even that knowledge, and the advantages which they have seen derived from the use of iron, have not in three centuries turned their attention to discover and employ it for themselves. And for how many centuries before, had they trodden over the richest hills of the ore without ever having framed an idea of the treasures which nature had deposited beneath their feet? If such has been the case with the American savage, what prospect for the invention of arts could be entertained from those human brutes with which the philosophy of some men would commence the population of the world?

But, among the most absurd of all opinions are two, directly contrary in their principles, yet originating from the same desire to account for all things without acknowledging any immediate act of creation by the Almighty. One ascribes an eternal succession to the human race upon this globe; the other pretends to account for the original existence of man by an *equivocal generation* resulting from the united action of moisture and heat on the primitive mass of the world, not yet perfectly redeemed from chaos, nor drained of its waters. On this supposition, indeed, if it had any support in the order of nature, these philosophers might find, in the slime of the recent earth, as many species of men, as there are of insects generated, according to their philosophy, from the same cause, in a stagnant morass. But, can the patrons of this extraordinary system explain the reason why nature has never made but one such effort? Why have we never, since that first generative act, found, in the most extensive morasses, even in the torrid zone, one newly formed man; nor even one limb, or outline of a man, just shooting from the moistened, and heated earth, like crystals in a chemical process? Have not moisture and heat, and all the other elements of nature, the

same properties still which they possessed in the beginning? But if these wretched philosophers only wish to avoid the immediate agency of God in the creation of this world, and of man; if, for this purpose, they will strike off the mass of this globe from the body of the sun by the impulse of a comet; yet, in their retrogression through the vast series of natural causes, is there not some point at which they must ultimately stop, and confess a creating power which has given its original movement and direction to the system of the universe? * If so, why not stop with religion at the beginning of this world, where we may behold man coming from the hand of his Creator, not like a casual clod of the valley, nor thrown from him like a wretched and abandoned orphan, but so instructed and assisted by Him who deigned to form him, and endow him with reason, that he should be worthy to be the parent of his numerous posterity, and lord of the new creation? True religion, and true philosophy must ultimately

* Unless they avow the principle of a gloomy and deplorable atheism, and lose themselves, like many of the ancient philosophers, in an infinite chaos of atomical actions, which have no other cause for their existence, or their motions, but the necessary nature of matter.

arrive at the same principle. There is the highest reason to believe that the primitive man received from his Creator, along with his existence, such a knowledge of the qualities, powers, and uses of the various objects around him, together with such moral and religious principles, as would lay in his family, and among his immediate descendants, the true foundations of civilized society. Hence the primitive nations are, at their first appearance, in history, already civilized. Savagism was an after growth, which took its origin from idle, or disorderly men who, abhorring the constraints of society, sought, in the bosom of boundless forests, that freedom from control, and from labor, which was congenial with their wandering disposition. By rapidly extending themselves over the uncultivated regions of Europe, and the North of Asia, they there prepared the elements of future nations. Thus mankind, either in a civilized, or savage state, became diffused in time over the surface of the whole globe. In every position suffering the influences of the climate, of the sterility or richness of the soil, of the elevation or depression of the face of their country, of the vicinity of seas or desarts, of their insular, or continental situation: or the modifications of all these,

resulting from their occupations, and their habits of living. Hence they now present to the eye an almost infinite variety in their complexion, their form and features, and their whole personal aspect.

If we compare together only those varieties of human nature by which the several sections of mankind differ most widely from one another, the difference is so great that, on the first view, it might very naturally lead to the conclusion that they must belong to distinct species. But, when we come to examine more particularly the intermediate grades which connect the extremes, and observe by what minute differences they approach, or recede from, one another; and when we observe further, that each of these minute gradations can be traced to obvious and natural causes, forming so many links, as it were, in the great chain connecting the extremes, we are ready to call in question our first impressions, and perceive the necessity of subjecting them to a new and more rigorous examination.

I have already remarked, that it is contrary to the laws of true philosophy to resort to the hypothesis of different original species of men in order to explain varieties which can otherwise be accounted for from

the known operation of natural causes. Philosophy delights in tracing the most diversified results through various combinations, to the simplest elements. And, if we can find, in the laws of nature, powers sufficient to impress on the ground of the same original constitution of man all the varieties of complexion and form which have distinguished the race in different climes, and states of society, it is an homage which we owe to philosophy, as well as to religion, to refer all the different nations of the earth to the same original stock. It is a debt which we owe to humanity to recognize our brethren in every class of men into which society is divided, and under every shade of complexion which diversifies their various tribes from the equator to the poles.

I shall endeavour, in the following essay, to fulfil these obligations to science, and to charity. But, in the course of this disquisition, if some of the facts from which important conclusions are drawn, seem, at first view, to those who have not been accustomed to observe nature in her nicest operations, to be too minute to bear the consequences which are charged upon them, I trust that a closer attention to the very fine and almost insensible effects of many physical causes, which, in the end produce the greatest re-

sults, will convince the judicious inquirer that greater stress may not have been laid upon them than they are able to bear; so far at least as to prevent a hasty rejection of the principles, and to procure for them a fair, candid, and patient investigation.*

Of the chief causes of the varieties of the human species I shall treat under the heads

Of Climate,—Of the State of Society,—and, Of the Manner of Living.—

OF CLIMATE.

In tracing the various climates of the globe, advancing from the arctic circle to the equator, we find them marked with considerable regularity by the colour of the inhabitants. In the European continent, we meet, in the highest temperate latitudes, with a ruddy, and sanguine complexion, which is

* It will be of importance to bear in mind throughout this essay, that the causes affecting the physical or moral constitution of man, and ultimately producing great distinctions between nations, seldom attain their full operation till after a long series of time. By almost imperceptible touches they produce their effects, till entering deeply, at length, into the habits and whole structure of our nature, they are transmitted from parents to their offspring. Even several generations may pass away before the ultimate results of the influences either of the climate, of the state of society, or of the manner of living, are perceived.

commonly conjoined with different shades of redness in the hair.* We soon descend to a clearer mixture of red in white. And afterwards succeed the brown, the swarthy, and, passing over into Africa, the

* Black hair united with a very dark complexion is frequent in the high latitudes of the temperate zone, which may indicate the affinity of those people with the inhabitants of the frigid zone, or rather the correspondence of the influences of these neighbouring climates. Near the boundary line, the climates may frequently interchange their effects; or the different races may be often intermingled. There seems to be even some affinity between the secretions, or colouring matters, which give the red or black complexion to the hair; since it is observed, in red haired families, if one person accidentally differs from the law of the house, it is most commonly to the opposite colour of black; and the reverse of this often takes place in families, and even in nations distinguished by the darker shades of complexion and hair.

Blumenbach remarks that, as to the various colour of the human hair, there seems to be considerable affinity between the red and the black. He adds, that very frequently persons marked by the redness of the hair are found among the darkest complexioned nations. (p. 169.) He quotes, as his authorities, Charlevoix, in his history of New France, who speaks of the fact as existing among the Esquimaux,—Lopez, who observed it among the inhabitants of Congo,—Sonnerat, among those of New-Guinea,—and Marion, and Wallis, in the islands of the great South-Sea. And the Doctor was in possession of red coloured hair cut from the head of a mulatto.

I have myself seen a young man, about seventeen years of age, of a fair and ruddy complexion interspersed with freckles, such as are common to that kind of skin, and having a reddish

tawny, increasing by darker and darker shades as we approach the hottest temperature of the torrid zone. In the Asiatic continent we pass at once from the fair to the olive, and thence by various gradations in the darkness of the hue to the black colour which prevails in the southern provinces of the peninsulas of Arabia and India. The same distance from the sun, however, does not, in every region, indicate the same temperature of climate. Besides the latitude, many secondary causes must be taken into consideration to determine the character of the climate. Elevated and mountainous countries, in proportion to their altitude above the level of the sea, ascend towards that region of the atmosphere in which we find the dominion of perpetual cold. High mountains likewise arresting the clouds in their course, compel them to pour their frequent rains, as well as spread their cool shades over the vallies which lie between them. Deep bays and arms of

wool tipped with a dirty white, who was born in South-Carolina of parents both of whom were perfectly black and of the African race. He was of a stout and vigorous constitution, and discovered no symptom of weakness, except in his eyes, the iris of which had a tincture of red, and they appeared to be more affected with a strong light than is common in white men.

the sea running far within the land, temper both the heat and the cold of the climate. And islands commonly enjoy a milder temperature than continents placed at the same distance from the sun. Vicinity to the ocean produces opposite effects in high northern latitudes, and in the latitudes nearer the equator; for this great body of water being of a more equal temperature than the land, in one case corrects the cold, in the other moderates the heat. Extensive ranges of lofty mountains, such as the Appenines in Italy, the Alps in Switzerland, and Taurus, Caucasus, and Imaus in Asia, by interrupting the current of cold winds on the one side, and, on the other, of the warm airs from the South, create, in the countries which lie below them towards the equator, a temperature much warmer, and in those above them towards the North, much colder, than would be indicated by the difference of latitude. The frigid zone in Asia, if I may give this denomination to the entire region of prevailing cold in that quarter of the globe, is much wider than in Europe. Asia, indeed, can hardly be said to know a temperate zone. From the northern ocean to the Caucasian or Uralian chains of hills, it may be regarded, says Montesquieu, as a flat mountain, or, as he should rather have said,

the declivity of a mountain, gradually descending towards the north through a space of two thousand miles.* Thence to the ocean which washes Arabia, Persia and India, it is generally a low country, declining to the south, destitute of seas to temper the warmth of the atmosphere, and protected by immense ranges of hills from the cold winds which blow from the North. The Asiatic continent, therefore, below the fortieth degree of latitude, is subjected to a much greater heat than is experienced in the same parallels in Europe; but between that degree and the arctic circle the dominion of cold is proportionably increased. The nature of the soil, likewise,

* Some of the longest rivers on the globe, the Oby, the Yenisea, and the Lena, rising from ranges of mountains near the latitudes of the Caspian sea, take their direction towards the North, and empty their waters into the ocean within the arctic circle. On the opposite side of this elevated region the rivers bend their course towards the South. So that the continent of Asia, in this part, presents the figure of the roof of a house, offering its southern side more perpendicularly to the rays of the sun, while the northern side, declining from them, disperses them over a larger surface. At the same time, the level face of the country exposing it more to the unbroken sweep of the polar winds, the union of both these causes renders the North of Asia much colder than the correspondent latitudes in Europe, while the southern declivity of that continent is proportionably warmer.

and the state of cultivation in different countries create some variation in the temperature of the climate. Sand is susceptible of a much higher degree of heat from the rays of the sun, and retains it longer than clay or loam ; and an uncultivated region, shaded with forests, and filled with undrained marshes, is more frigid in northern, and more temperate in southern latitudes than countries laid open to the full action of the solar influence.* In winter the moisture of the atmosphere is congealed into more abundant snows, and in summer descends in more frequent and copious showers of rain. When the North of Europe lay almost buried in its native for-

* Notwithstanding this general fact, it is equally true that, in a new country, like that of the United States, when only a few plantations are opened here and there in the midst of the woods, the inhabitants are subjected to a more oppressive heat in the summer season than they will be when the country shall be entirely disforested. When a small plantation is opened in a forest, the surrounding woods obstruct those breezes which would refresh the inhabitants, while they are exposed to the direct and scorching rays of the sun. To this we may add, that the moist vapor, with which the atmosphere is generally filled in a region that is not yet cleared and drained, settling down more copiously on the few spots which are opened, where there is not vegetation sufficient, as in the woods, to absorb it, renders the heat more oppressive, and at the same time the atmosphere more unwholesome.

ests, and was inhabited only by various tribes of barbarians and savages, there are several facts recorded in history which demonstrate that cold prevailed in a much higher degree than at present. In the age of Horace hail and snow were frequent phenomena at Rome ; and the light wines of Italy were sometimes frozen in their cellars. And Trajan, in his Dacian wars, is said to have transported his armies across the Danube on the ice. But since those barbarous regions, from the Adriatic to the White Sea, have been civilized, and those extensive forests have been cleared away, and the earth subjected to tillage, hail or snow are rarely seen at Rome, and their wines, at present, never suffer from congelation.

From the preceding observations this conclusion results ; that there is a general ratio of temperature prevailing over the whole globe according to the degree of latitude from the equator, which forms what is usually denominated climate.* And a general re-

* Besides the effects resulting from temperature, or the direct action of the sun's rays, when we consider the various elements, or gases, which enter into the constitution of our atmosphere, and the different proportions of these principles which exist in the various regions of the globe, according to their

semblance may be traced in the complexion of nations inhabiting the same latitudes. Both these effects, however, are greatly modified, in different countries, by various combinations of the causes already mentioned. And the latter, in particular, together with the whole human appearance, is still more diversified by the state of society in which different tribes of the human race exist, and their manner of living ;

proximity to the course of the sun, or according to their soils, their waters, their minerals, their volcanos, and a thousand other causes which affect this aerial ocean, it is not surprizing that animal bodies, constantly exposed to their action, and suffering their influences, either by absorption, at the surface of the skin, or by respiration, by which their qualities are imparted to the mass of the blood through the lungs, or the stomach, should be sensible of material changes in many respects from the variations of this atmospheric constitution. These variations will be greatly increased, and diversified in their influence on the human body by the different proportions of light, of heat, of the electric fluid, and of many other operative and powerful principles constantly mingling themselves with the mass of the air. Although this general proposition will be easily admitted to be true, yet the respective effects on the human constitution of these fine and active principles every where blended with the atmosphere, so easily elude our observation, and are so difficult to be separately ascertained, and discriminated from one another, that the present state of physical science forbids us to hope for much satisfaction from any attempt minutely to investigate them.

the influence of which causes shall, hereafter, be more minutely examined.

Let us, in the first place, pass under review the general effects of climate upon the colour of the human skin : after which we shall take notice of the principal apparent deviations from the common law exhibited in various portions of the earth.

The power of climate to change the complexion is demonstrated by facts which constantly occur to our observation. In the summer season we perceive that the intensity of the sun's rays in our climate tends to darken the colour of the skin, especially in the labouring poor who are more constantly than others, exposed to their action. In the winter, on the other hand, the cold and keen winds which then prevail contribute to chafe the countenance, and to excite in it a sanguine and ruddy complexion. In the temperate zone, the causes of these alternate and opposite effects serve, in a degree, to correct one another. But in proportion as heat or cold predominates in any climate, it tends to impress a permanent and characteristic complexion. The degree in which the one or the other prevails over its opposite may be considered as a constant and uniform cause to the action of which the constitution is exposed.

Heat and cold affect the nervous system by tension or relaxation, by dilatation or contraction, and in this way, produce an alteration in the state of the solids. Hence also the fluids are affected ; the quantity of the perspiration is augmented or diminished ; and the proportions of the various secretions changed. But the human skin is susceptible of still greater and more sensible changes, by the opposite actions of the intense rays of the sun, or of the principle of cold upon its delicate texture. Even minute differences in the power of the cause often become perceptible in the variety of the effect. The justness of this remark will be rendered more obvious by a familiar example which is constantly exposed to our observation. A cold and piercing air chafes the countenance, and increases the ruddiness of the complexion. A warm and moist atmosphere, on the other hand, tends to relax the constitution, and commonly produces, in valetudinarians especially, some tincture of a bilious hue. These effects, in countries where heat and cold succeed each other in nearly equal proportions, are transient and interchangeable. But where the climate, in any given proportion, repeats the one, or the other, of these impressions, there, in the same degree, is formed a correspondent and

habitual colour of the skin. If I have applied this term to the colour of the skin, as well as to the features and form of the countenance and person, it is because I believe that the greater part of the varieties in the appearance of the human species may justly be denominated habits of the body. Like other habits, they are created, not by great and sudden impressions of their causes, but by continual, and almost imperceptible touches. Of habits, both of mind, and of body, nations are susceptible as well as individuals. Long in growing to maturity, national features, like national manners, become fixed only after a succession of several generations. At last, however, they become fixed. And if we can ascertain any effect produced by a given state of climate, of society, or of the habits of living, it requires only to be repeated during a sufficient length of time, to give it a permanent character, and so to incorporate it into the constitution, as to render it an hereditary property of the race. The sanguine, or the fair complexion will, for this reason, be perpetual in the higher latitudes of the temperate zone, and we shall generally find different shades of the dark colours, gradually increasing, till we arrive at the perfectly black, as we descend to the equator.

If those philosophers, who maintain that the varieties in complexion, and other constitutional properties of different tribes of mankind, are infallible indications of diversity of species, have embraced this hypothesis from an apprehension that it is most consistent with the benignity and wisdom of the Creator to form different races of human beings, fitted by some peculiar adaptation of their physical organs to the respective climates they were severally destined to inhabit; one would think that sound reason should induce us, from these premises, to infer a contrary conclusion; that he has formed the human constitution with such flexibility in its organization, that it is capable of accommodating itself to every situation on the globe, to which business or necessity may call men, or a liberal curiosity and the desire of improvement may invite them. This pliancy of nature in man, above that of most other animals, is favorable to the intercourse of the most distant nations, and greatly facilitates the cultivation of science. To what ample sources of information have not navigation and commerce opened an access? How imperfect must the philosophy of human nature itself have remained if we had been precluded from contemplating it under every climate; and form of

society, and in every progressive stage of its improvement from absolute savagism, to the highest point of civilization and refinement? And according to this wise and benignant intention of providence, do we not see mankind continually changing their habitations? Do not we find them under every zone from the equator, to the pole, not only able to endure all these different degrees of temperature without injury, but so assimilated by time to the character of each new climate, that hardly can we pronounce with certainty, who have been descended from the aboriginals of the country, and who from families who have migrated thither only a few generations past?

Why should it be thought necessary then that the Creator should have formed different species of men to inhabit the frozen regions of Lapland, and the torrid climes of Africa, when it is confessed by one of the greatest champions of this doctrine, that a colony of Hungarians, who are among the handsomest and best proportioned people of Europe, have, by migrating to Lapland, some ages ago, become absolutely assimilated to the natives of the country in every attribute of that diminutive and deformed

race,* or were really the original stock from which the present inhabitants are derived? And the same author asserts that a colony of Portuguese, established in Congo, not yet three centuries since, have so degenerated in complexion, in the figure of their persons, and their habits of living, as to be no longer distinguishable from the neighbouring tribes of Hottentots, who are among the filthiest, the most deformed and savage of mankind. These examples ought surely to have convinced the learned advocate of this hypothesis how unnecessary it is to the explanation of the different appearances which human nature puts on in the different climates and regions of the globe, having before his view such proofs of the facility with which the constitution of man moulds itself to the impressions of each, and assumes the habits of every state of society.

Before proceeding to treat directly of the causes of the various degrees of dark complexion observable in the different tribes of the human species, it will not be improper to propose two or three preliminary remarks on the structure of the skin, the seat of colour. This fine integument, although extreme-

* Lord Kaimes in his sketches of the history of man.

ly delicate, and susceptible of the lightest impressions from many causes both external and internal, is, however, in its organic texture, among the least mutable parts of the human body. Hence any colour introduced into its substance is not easily eradicated. Figures stained in it with paints inserted by punctures become indelible. For the same reason, freckles, though consisting only of partial stains impressed on the surface of a fair skin by a slight exposure to the sun and air, cannot be removed but with great difficulty;* and in persons of a certain ruddiness of complexion, such as is found commonly united with hair of a dark red, or deep orange colour, can never be entirely effaced.†

* White may be regarded as the colourless state of skin, and all the shades of the dark colours as different stains inserted into its substance.

† It has been remarked, and not without reason, that a dark colour of the skin may be considered as a universal freckle. And, certainly, if the same kind of secretion mingling with the perspirable matter issuing from the pores of the skin, which is fixed by the action of the sun or air, on certain points in freckles, should be equably diffused over the whole surface of the body, or throughout the whole substance of the skin, and we can discern no reason why it may not, every point would consequently be stained with the same colour.

We see, even in our own climate, that the solar rays are able to penetrate the entire substance of the skin ; and, when it is first exposed to them without covering, they dissolve its texture, by inflaming and raising it into blisters. This action tends not only to change its colour, but to incrassate its substance till it becomes thick enough to resist any further alteration from their influence ;* when it assumes a hue, more or less deep, according to the power and continuance of the cause. The complexion of the African zone, therefore, in the greater portion of which the inhabitants are both savage in their manners, and almost universally destitute of clothing, will naturally be as much deeper as the ardor of the sun,† in those parched regions is both more con-

* The stimulus of the sun's rays, exciting a greater flux of humours to the skin, tends to incrassate its substance. Hence the skin on the hands and face of labourers, and sea-faring men, is thicker than that on other parts of the body. And all people of colour have this integument thicker than persons of a fair complexion. Blum. p. 110.

† Pliny seems inclined to ascribe the colour of the Africans entirely to the excessive ardor of the sun in that climate. He says, lib. 2. cap. 78. "*Ethiopas vicini Sideris vapore torreri, adustisque similes gigni, barba, & capillo vibrato, non est dubium.*" And Ovid in the second book of the *Metamorphos-*

stant, and more intense than in the temperate latitudes, or even in other districts of the torrid zone.

The dark colours of the tropical nations, however, are not to be ascribed solely to the action of the sun's rays upon the skin. Extreme heat, especially when united with putrid animal, or vegetable exhalations, which in all torrid climates are found copiously to impregnate the atmosphere, tends greatly to augment the secretion of bile in the human system,* which, being diffused over the whole surface of the body, imparts to the complexion a dull yellow tinge, that soon assumes a very dark hue, by being exposed to the sun, and by immediate contact with the

es, relating the fable of Phaeton attributes the effect to the chariot of the sun. In which, says Feijoo, although the substance of the narration is fabulous, he alludes to the opinion which was then generally adopted; that the proximity of the sun was the cause of the colour of the Ethiopians—

Sanguine tunc credunt in corpora summa

Vocato, Ethiopum populos nigrum traxisse colorem.

* Dr. McClurg in his treatise on the bile, asserts that this secretion is always increased in proportion to the degree of heat which prevails in any climate. We ought, however, to take into our consideration also other causes of an increased secretion of bile, as putrid miasmata in the atmosphere, meagre, or scanty food, excessive hardships, and whatever corrupts, or impoverishes the blood.

external air.* Different shades of the dark colours, therefore, till we arrive at the deepest black, will be found in the human complexion, in proportion to the predominancy of bile in the constitution, as well as of heat in the climate.

On the immediate causes of colour in the human species I shall state a few obvious facts. We may not be perfectly acquainted with the internal process of nature in the production of those phenomena, yet their existence may be sufficient to convince the philosophic observer that climate is the principal agent in creating that variety of complexion which distinguishes mankind in the different regions of the globe.

1. The rays of the sun, when suffered to act immediately on the human skin, tend to produce a dark colour, although there should be no uncommon redundancy of bile in the constitution.

2. On the other hand, redundancy of bile imparts a dark hue to the complexion† in persons who have

* Take bile from any animal, and expose it but for a short time to the influence of the sun and air, and it becomes black.

† There is a great agreement, and sympathy, says Blumenbach, between the *liver*, the laboratory of bile in the human

not, in any uncommon degree, been exposed to the direct action of the sun. Accordingly, we frequently see those who have been long affected in different degrees by an excess of this secretion, contract a hue resembling that of various dark coloured nations.*

constitution, and the *common integuments* of the body, or the skin ; and both are to be considered as being among the principal means provided by nature for purifying the mass of the blood.

“ Manifestus officinæ bilis cum integumentis communibus consensus. Utraque quippe organa, *hepar* nempe et *cutis*, “ ad maxime principalia, et invicem consentientia sanguineæ “ massæ purgatoria referenda.” De gen. hum. degen. &c. § 44. p. 126.

* Dr. Strack, in his observations concerning intermittent fevers, speaking of jaundice arising from this cause, says, “ I have seen the skin, after such a jaundice, remain of an olive colour, like that of the Asiatics, and even be imparted to children. One I have seen become nearly as black as an East-Indian: and another the whole skin of whose body became as dark as if he had been the offspring of an Indian father, and European mother, while the palms of the hands, and soles of the feet remained white like those of the indians.” Book iii. ch. 2. I may add to these examples of Dr. Strack that of a gentleman of the town of Newark in the state of New-Jersey, whose complexion has, for more than twenty years, been as dark as that of an aboriginal American. This colour was induced at first in consequence of disease ; but though he has, for a long time, enjoyed his health, the colour still remains. “ I would

3. Where both causes co-operate, as is the case in all fervid climates, the effect upon the complexion of the inhabitants must be greater in proportion to the influence of the respective causes.

4. The human skin has been discovered by anatomists to consist of three distinct lamellæ or integuments; the external, or scarf-skin, which is an extremely fine netting, and perfectly transparent in the darkest coloured nations,—the interior, or true skin, which, in people of all the different grades of colour, is white,—and an intermediate membrane, which

not, says Dr. Blumenbach, urge too far the analogy of the jaundice with the national colour of the skin, yet are there several phenomena which merit attention on this subject, and, among others, the following; that, among nations of a dusky, or black complexion, it is a frequent, not to say general thing, to find persons, otherwise in their full health, who have the white of the eye tinged with a certain yellowish appearance like those who have been affected by bilious disorders. This is very observable in the natives of India, of tropical Africa, and America." For the fact he quotes *De la Loubere descript. du royaume de Siam. T. 1. p. 81.* and *Rochefort, hist. naturelle des Antilles. p. 383.* He adds, we frequently see in those who have been affected with jaundice, according to the degree of the disorder, the skin, in different persons, stained with various shades greatly resembling the complexion of different nations of colour, which stain often remains permanent after the disease has been entirely removed. *Bium. de gen. hum. degen. in specie. §45. p. 131.*

is cellular in its structure, somewhat like a honey-comb. This membrane is the proper seat of colour, being filled with a delicate mucous, or viscid liquor, which easily receives the lively tinge of the blood when strongly propelled, by any cause, to the surface, or the duller stain of the bile when it enters in any undue quantity into the circulation. The smallest surcharge of this secretion imparts to it a yellow appearance; which, by remaining long in contact with the atmosphere assumes a darker hue,* and if exposed, at the same time, to the immediate influence of the sun, approaches, according to the heat of the climate and the degree in which the bile prevails, towards black.

5. The gall, or bile of any animal exposed to the sun and air, in a short time becomes black: a phenomenon which probably results from the great proportion of carbon which enters into its composition,*

* Even the blackest negro, when first born, does not exhibit his true complexion till after he has been some time exposed to the contact of the external air.

* Carbon, in its purest state, is known to be clear and transparent, as is seen in the diamond; but in that mixed and impure condition in which it exists in most bodies, especially in the bile, the contact of the atmosphere, or the action of heat,

and the evaporation which takes place in the open air of the hydrogen, or aqueous fluid with which it had been combined and diluted.

6. When, from any cause therefore, the bilious secretion has been increased beyond its natural proportion, approaching the surface of the body in the progress of the circulation, the carbonic matter of its composition becomes there attached to the viscid mucous in the cellular membrane of the skin, while the more thin and volatile hydrogen with which it is combined, having a stronger affinity and attraction with the oxygen of the atmosphere, and flying off first, leaves it precipitated and entangled in those cells where it stains and discolours the complexion.*

renders it black. Even the diamond, by the force of intense heat, may be covered with a black crust.

* This is confirmed by an observation of Dr. Blumenbach in his treatise *de gen. hum. degen. in specie*, § 44. p. 124, &c. The proximate cause, says he, of the dark colour in the external integuments of the skin is to be sought in the carbon which abounds in the human body, and abounds more in the oil and bile than in any other animal substances. The latter coming united with the hydrogen, with which it is intimately combined, to the surface of the body, the hydrogen there attaches itself more quickly to the oxygen of the atmosphere, on account of their superior mutual attraction, and, flying off first,

7. The bile itself is, perhaps, more liable than most other secretions in the human body, to become incrassated and mucous: at least it is always copiously found in that state in the stomach and intestines of those persons who have been long subject to bilious disorders.

8. The vapours arising from stagnant waters with which uncultivated regions abound, great fatigues and hardships, poverty of diet, filthiness in the manner of living, tend, likewise, to create a surcharge of the bilious secretion. Hence, as well as from their

the carbon is precipitated in the rete malpighianum, or second integument of the skin, and infects it with its dark colour in proportion to the quantity which various causes have thrown into the circulation, the chief of which is climate. *Causam equidem proximam adusti, aut fusci coloris externorum cutis integumentorum, in abundante carbonaceo corporis humani elemento quærendam censeo, quod cum hydrogenio per eorum excernitur, oxygenii vero atmospherici accessu præcipitatum, Malpighiano muco infigitur.*

Ingens climatum in hepatis actionem potentia, utpote quæ intra tropicos cœli ardore mirum quantum excitatur et augeatur. Hinc morbi biliosi intra tropicos multifarii et endemii.—*Blum. de generis hum. degen. in specie. § 44. p. 125, 126.*

In section 45th, p. 130th, he says; that the carbonic matter belongs to the primary elements of the animal system, and that it is the cause of a colour more or less dark has been rendered evident by the late improvements in chemistry, particularly, among the French.

nakedness, and exposure to the unmitigated effect of the solar and atmospheric influence, savages will always be discoloured even in temperate, or in cold climates.* For, although cold, when assisted by succulent nourishment, and by the comfortable lodging and clothing furnished by the arts of civilized life, propels the blood with force to the surface, and tends, in a healthful state of the body, to render the complexion clear, yet, when the system is relaxed, or receives a surcharge of bile from the causes mentioned above, and poor and shivering savages, under an arctic sky, do not possess those conveniences which, by cherishing the principle of life, assist the motion of the blood to the extremities, the constitution is overstrained, indirect debility ensues, and an increase of the same discolouring secretion is produced.

* From the affinity of the bile, says the same eminent physician quoted in the last note, with the fat or oil of the animal body, noticed also by Fourcroy, (*philosophie chimique*, p. 111.) appears the reason of that waxen hue observable in dark coloured nations, remarked by J. F. Meckel, *histoire de l'academie des sciences de Berlin*. 1753. p. 92.—Hence, unless I am deceived, continues he, we derive the reason why nations who live chiefly on a food consisting of animal oil, not only smell of the oil, but contract a very dark complexion; as the Greenlanders, and the miserable inhabitants of *Tierra del Fuego*, whose scanty subsistence consists chiefly of the almost putrid fat of seals.

The rigor of their climate, the hardships of their state, the grossness and scantiness of their food, and filthiness of their whole manner of living, not only tend to augment this secretion, but, by obstructing the pores of the skin, hold it longer in nearly a stagnant state at the surface of the body, and in contact with the external air, which occasions an increase of the dark colour. Hence, perhaps, the deep Lapponian complexion, which has been esteemed a phenomenon so difficult to be explained.

9. One other fact on this subject deserves to be remarked. Those who make great and sudden changes in their residence from northern to southern climates, and, especially if they remove from high and dry soils to moist and undrained regions, are usually attacked by bilious disorders which leave the blood impoverished, and shed a dark colour, tinged with a yellow appearance over the skin. These disorders are evidently the effects of the climate, and are probably only the efforts of nature in removing that tension of the system which would render it under the action of an ardent sun, liable to dangerous inflammatory fevers, and imparting to it that proportion of

bile which is requisite to its safety, and its comfortable subsistence in its new situation.*

In the preceding propositions I have endeavoured to state some principles, supporting them on the authority of unquestionable facts, by which to explain the proximate cause of colour, and its various shades in the human species, but, whether the theory which I have attempted to erect on the foundation of these facts be satisfactorily supported or not, the general principle, that climate possesses all the power to change the complexion which I have ascribed to it,

* Bilious disorders are known to relax the system, and thereby to render it less liable to the inflammatory fevers to which a tense and plethoric habit would be exposed under a hot sun. The bile which tends easily to become mucous and incrassated, contributes also, by increasing the thickness of the skin, which thereby forms a kind of veil to the body, to resist the inflammatory action of the sun's rays upon the constitution, and to render it more patient of extreme heat. For, it is observed by Blumenbach, of the reticular membrane of the skin, that it is always thicker in proportion to the darkness of the colouring matter with which its cells are filled. Blum. de gen. &c. p. 164.

But it should ever be remembered that the predominance of bile in the habit, and the discolouration of the skin, although they may be, and, in the first instance, usually are, the effects of disease, yet, becoming, in time, constitutional properties, they remain after all symptoms of disease have passed away; and may even become necessary to a healthful state of the body.

can be established, I apprehend, on the clear and decisive evidence of other facts, although I should have failed to point out the precise mode in which climate acts, or accurately to have traced the chain of its effects.—The principle results, then, from the regularity of the complexional zones of the world.—It results from obvious and undeniable events within the memory of history.—And it results from facts which come under our own immediate observation in America.

Encircle the earth in every zone, and, making those reasonable allowances which ought to be made, for the influence of mountains, lakes, and seas, and those other circumstances which are known to modify the temperature of climate, each zone is seen to be marked by its own distinctive, and characteristic complexion. The black prevails under the equator ;—near the tropics we arrive at the dark copper ;—and, on this side of the tropic of Cancer, to the seventieth degree of northern latitude, we successively trace the tawny, the olive,* the brown,

* Some difference exists in the tints which mark the corresponding latitudes in Asia and Europe, arising from the diversity of the respective climates occasioned by the nature of the soil, the form of the continents, and other causes affecting the temperature of the atmosphere.

the fair, the sanguine. In each of these grades we discover several shades or tints; till, beneath the arctic circle, we return to the black. This general uniformity in the effect, as we proceed towards the North, or the South, affords a strong presumption, that the various shades of complexion which distinguish the different latitudes are to be ascribed chiefly to the influence of climate. The apparent deviations from this law which are presented to our view in particular regions of the globe, will, when we come, in the progress of this discourse, to point out their causes, serve only to confirm the general principle.*

* Various causes may contribute, in certain districts of the globe, to alter the prevailing temperature of the atmosphere, and consequently the shade of the complexion, which may be said to form the general and characteristic temperature and complexion of any particular latitude. Some of these have been already suggested, and others will be more largely detailed hereafter. In a philosophic enquiry into this subject it is necessary continually to recollect that there are often various climates, taking that term to signify any particular degree of heat, or of heat combined with moisture, under the same parallel of latitude.

When this obvious consideration is attended to, it is the more surprizing that the critical reviewers in England, in remarking on the first edition of this essay, should think to refute the reasonings on the influence and effects of climate by drawing their parallel round the globe, and shewing the vari-

The influence of climate on the human complexion is demonstrated by well known and important events within the memory of history. From the Baltic to the Mediterranean the different latitudes of Europe are marked by different shades of colour. In tracing the origin of the fair German, the dark coloured Frenchman, and the swarthy Spaniard, and Sicilian, it has been proved that they are all derived from the same primitive stock ; or, at least from nearly resembling nations which may be comprehended under the general names of Huns and Goths. The southern provinces of France, of Italy, of Spain, and of other countries of Europe, are distinguished from the northern by a much deeper shade of complexion.* And, if we extend our view

ous shades of colour found under this circle.—This negligent and injudicious criticism is the less excusable because the fact had been remarked and accounted for in the essay itself ; and to the candid, the attentive, and truly philosophic reader, I trust it is sufficiently demonstrated to be the necessary result of the principles laid down on the subject of climate.

* It has been remarked by travellers that in Spain the ladies of the province of Biscay generally possess very fair complexions. In Grenada, on the other hand, and the other southern provinces, they are of a dark swarth, which is so general a characteristic of the ladies there, that it is esteemed a beauty,

beyond Europe to the great empires of the East, to Arabia, to Persia, to India, and China, this observation is still more applicable to those countries which embrace so much greater an extent of latitude. The inhabitants of Pekin are fair while those of Canton exhibit as deep a colour as the Mexicans. The Persians in the vicinity of the Caspian sea are among the fairest people in the world, and their neighbours, the Georgians and Circassians, are acknowledged to be the most beautiful. But, this delicate complexion gradually changes to a dark olive as we approach the gulph of Ormus. The inhabitants of the stony and desert Arabia are distinguished by a light copper colour, while those of the southern provinces of Mocha and Yemen are of as deep a hue as those of middle India. The same gradation holds in Egypt, from the Mediterranean sea to the foot of the mountains of Abyssinia. The population of the southern provinces of the peninsula of India are black; on the North, and just below the range of the Caucasian mountains, the complexion changes to a light chesnut, or yellow colour. And this gra-

and is even given to their pictures and statues of the Virgin Mary. Blum. p. 135.

dation is observed both on the Malabar, and the Comandel coast.*

In these extensive countries in which the surface of the earth is more uniform than in Europe, and not so much broken and intersected by mountains, seas, and bays running far up into the land, the gradation of colour holds a more regular progression according to the latitude from the equator. But the influence of climate on the complexion is better illustrated by its effects on the Arabians and the Chinese, than on most other nations, who have been the subjects of frequent conquests, and great intermixtures with foreign tribes. These people have remained, from a very remote antiquity, almost wholly unmingled with foreign nations. The former, especially, can be traced by a clear, and undisputed genealogy to their origin in one family; and they have never been blended, either by conquest, or by

* The authors of the Universal History. Asiatic Researches. Bruce's Travels. Accounts of Missionaries to India from Britain, Holland, and Germany. A similar remark is made with regard to the negroes on both sides of the Senegal river, by Barbot in Churchill's collection of voyages. But the varieties of Africa will be afterwards more particularly noticed and accounted for.

commerce, with any other race. And yet we find every gradation of discolouration among them from the swarthy hue of the northern provinces to the deep black suffused with a yellowish tinge,* which prevails in the southern angle of the Arabian peninsula.

But no example can carry with it greater authority on this subject than that of the Jews. Descended from one stock, prohibited by their most sacred institutions from intermarrying with strangers, and yet widely dispersed into every region on the globe, this one people is marked with the peculiar characteristics of every climate. In Britain and Germany they are fair, brown in France and in Turkey, swarthy in Portugal and Spain, olive in Syria and Chaldea, tawny or copper-coloured in Arabia and Egypt.†

* It is the same colour which is seen in those blacks who, in the United States, are denominated yellow negroes.

† Buffon's Nat. Hist. vol. III.—Mr. Buffon, in giving these general characteristics of complexion writes rather like an orator than a philosopher, and, that he may not embarrass his style by too many distinctions, gives the colour of only a particular portion of each country. For example, he has in his view chiefly the northern parts of Arabia, and of Egypt; the

Another example of the power of climate to change the complexion, and even to introduce great alterations into the whole constitution, is presented to the view of the philosophic observer in the native population of the United States. Sprung, not long since, from the British, the Irish, and the German nations, who are the fairest people in Europe, they have extended themselves over the American continent from the thirty-first to the forty-fifth degree of northern latitude. And notwithstanding the recent period at which the first European establishments were made in America ; and the continual influx of emigrants from the old continent, and their frequent intermarriages with the native Anglo-Americans ; and, what is of not less consequence in this question, notwithstanding ideas of personal beauty derived from their ancestors which they sedulously cherish, and which the arts of civilized life have enabled them to preserve, as far as is possible, against the influence

North of Syria, and South of Chaldea ; with perhaps a similar limitation in Turkey, and in France. A tribe of Jews, or Israelites has lately been discovered in India, known by the Hebrew Pentateuch preserved among them from immemorial time, to be of the stock of Israel, who have become, by a residence of ages in that climate, as black as the natives.

of the climate ; yet have they undergone a visible and important change. A certain paleness of countenance, and softness of feature in the native American strikes a British traveller as soon as he arrives upon our shores. Many exceptions there are ; but, in general, the American complexion does not exhibit so clear a red and white as the British, or the German. And there is a tinge of sallowness spread over it which indicates the tendency of the climate to generate bile. These effects are more obvious in the southern than in the northern states. They appear more strongly marked in the low lands near the ocean, than as you approach the mountainous regions to the North and West. And they are much more deeply impressed in the poorer classes of the people than in families of easy fortune who enjoy a more various and nutritious diet, and possess the means at once of improving their appearance, and guarding against the unfavourable influences of the climate. The people of New-Jersey, in the low and level country between the sea, and the extensive bay of the river Delaware, are generally darker in their complexion, than in those counties where the country rises into hills ; and considerably darker than the inhabitants of Pennsylvania, which is every where

diversified with hills, and frequently rises into lofty mountains. The depression of the land exposes it to greater heat; and the level surface of the country, not yet subjected to a high degree of culture, leaves it, in many places, covered with stagnant waters that impregnate the atmosphere with unwholesome exhalations, which greatly augment the secretion of bile. The increased heat of the sun in the low lands of Maryland and Virginia, near the coasts of the ocean, and of the wide bays which every where indent them, gives a visible heightening to the darkness of the complexion, especially in the poorest classes of the people who are most exposed to the force of the climate. Descending still farther to the South, along the sea coast of the Carolinas and Georgia, we often meet among the overseers of their slaves, and their laborious poor, with persons whose complexion is but a few shades lighter than that of the aboriginal Iroquois, or Cherokees. Compare these men with their British ancestors, and the change which has already passed upon them, will afford the strongest ground to conclude that, if they were thrown, like our native indians, into a state of absolute savagism, they would, in no great length of time, be perfectly

marked with the same complexion.* Not only is their complexion thus changed, but a visible and striking alteration seems to have been produced on their whole constitution. So thin and meagre fre-

* Those rude woodmen, on the frontiers of the United States, who live in the vicinity of the indian tribes, and who, being frequently intermingled with them, have adopted nearly the same modes of living, contract, in time, a great resemblance to the savages, not only in their manners, but in their colour and the expression of the countenance. Those especially who have incorporated themselves with any of their tribes, conforming entirely to their customs, and habits of living, soon acquire a surprizing similarity to them in their whole appearance. Of this effect Mr. Adair in his history of the American indians, gives us a striking example in an Anglo-American who had, in this manner, incorporated himself with the Shawanoese nation. And I have had similar relations confirmed to me by persons who have had the best opportunities of making observations on these adopted children of the savage tribes. "At the Shawanoe main camp, says he, I saw a Pennsylvanian, a white man by birth, and in profession a christian, who by the inclemency of the sun, and his endeavours to improve the red colour, was tarnished with as deep an indian hue as any of the camp, although he had been in the woods only four years." Adair Hist. Amer. Ind. p. 3, 4.—I follow this extract with the remark of the ingenious and judicious Dr. Barton of Philadelphia: "If these remarkable changes are wrought on the system in the term of a few years, we ought not to be surprized at seeing even the most opposite tints and features produced from the long and permanent operation of physical, and of moral causes." But I will add that, probably, the Anglo-Americans will never degenerate into a perfect resemblance of the abori-

quently are they in their persons, that their limbs seem to have a disproportioned length to the body ; and the figure of the skeleton appears often, very distinctly, through the skin. If these men, unmixed with others whose state in society enables them to enjoy in greater abundance the conveniences and comforts of living, and consequently the means of preserving themselves from the deteriorating impressions of the climate, had been found in a distant region where no memory of their origin remained, they would have furnished to the advocates of different species belonging to the human kind, an example as strong, and as much to the purpose of their argument, as most of those on which they now rely with the greatest confidence.

In general, the habit of the Anglo-Americans is more slender than that of the natives of Great-Bri-

ginal indians. The arts of civilization may be expected, in a considerable degree, to correct the effects of the climate. Even if they should now sink into a state of savagism, perhaps the resemblance might not, in every point, be complete ; because the one would receive the impressions of the climate on the ground of features formed in Europe, and in a high state of civilization ; the others have received them on the ground of features formed in a very different region of the globe, and in a much ruder state of society. Such differences in the combinations must necessarily vary somewhat the results.

tain or Ireland, from whom the greater part of our population is descended. But the extremely meagre aspect of that class to which I refer, may arise from their situation, which exposes them more to the unmitigated influences of a climate that is, at present, very unhealthy from the intensity of its heat acting on the great quantity of its stagnant waters and infecting the atmosphere, during the hot season, with putrid exhalations. And, I have before remarked, that the changes created in the human constitution by migrating from dry, to moist regions, and from temperate to very warm latitudes, are, in the first instance generally diseases. Hereafter, when the constitution shall become more accommodated to the climate, as it may, in time, adapt itself to any situation on the globe, these people will present to the eye a less haggard, and diseased appearance; but they will probably forever exhibit a very thin and meagre habit of body, and a very swarthy hue.

Examples taken from the descendants of Europeans in America are the stronger because the climate has not yet had time to impress upon them its full character. And the change which will ultimately be produced in the American constitution has been

retarded, not only by the arts of civilized society,* but by the continual intermixture of new colonies of emigrants from Europe with the natives of the country.

To those who have surveyed this subject in a hasty and superficial manner, these changes may appear to advance more slowly to their ultimate point than is consistent with the principles hitherto laid down. But it will be recollected that all national changes, whether moral or physical, usually advance by almost imperceptible gradations.† Many cen-

* In savage life men more easily receive the impressions of the climate than in civilized society, because they are exposed to its full force without any means of defence. Indeed, whatever art they possess is usually employed, not in defending themselves from its influences, but in heightening the dark colour of the skin. But independently on the application of any art, the same consequences would result, in a degree, from the extreme neglect and filthiness of their persons.

† It deserves to be remarked that the natives of the West-India islands, even of those settled by the English and Danes, and the fairest European nations, are already become very dark in their complexion, and approaching to a copper hue, although three centuries have not yet elapsed since those settlements were first established. The descendants of the Spaniards in South-America are become absolutely copper coloured. [See Phil. Trans. of Roy. Soc. Lond. No. 476. Sect. 4.] The Per-

turies elapsed before Europe was able to raise herself to her present refinement, from the rudeness of barbarian manners which overspread that portion of the globe after the fall of the Roman empire. Perhaps not less time may be required to pass through all the changes which, from different causes, may affect the countenance and corporal form and appearance of a whole people ;—to receive the impressions of climate on successive generations till it has attained its utmost operation ;—to combine these with the effects which result from the state of society ; to blend both with personal peculiarities ; and, by the almost infinite unions of families, to melt down the whole into those features, combined

tuguese of Mitomba, in Sierra Leona, on the coast of Africa, have, by intermarrying with the natives, and adopting their manners, become, in a few generations, so assimilated to them in figure, and complexion, that hardly can they any longer be distinguished. [Treatise on the trade of Great-Britain to Africa, by an African Merchant.] And Lord Kaims affirms of another Portuguese settlement on the coast of Congo, that the descendants of those Europeans have become both in their persons and their manners, more like beasts than like men. [Prelim. Disc. to the Sketches on Man.] These examples indicate, with no small degree of evidence, how easily climate would assimilate, in a great degree, any foreign people to the natives of any country, in the course of time, if they would adopt the same manners, and equally expose themselves to its influence.

with that complexion, and peculiar expression, which go to form what is called a *national countenance*. It is even questionable whether any nation in Europe, in consequence of the eternal migrations and conquests which have mingled and confounded its inhabitants with the natives of other regions, yet exhibits the entire effect of all these causes, so far, at least, that they may not still be susceptible of further change. China and Arabia are, perhaps, the only civilized countries in the world in which climate combined with manners, have attained their utmost operation on the human constitution ; because they are the only countries in which the inhabitants have been able, during a long succession of ages, to preserve themselves unmixed with any other people, and to persevere in the same habits of life. Each parallel of latitude is, among them, distinctly marked with its characteristic complexion. In no other country is there such a regular gradation of colour as is traced from the fair natives of Pekin* to the in-

* The Tartars, who have more than once, within the memory of history, dethroned the reigning family at Pekin, and established a new dynasty in the empire of China, form no proper exception to this remark. The Tartars, though they changed the dynasty, made no alteration in the frame of the

habitants of Canton, who are of a dark copper; or from the dark olive or swarthy colour of the Desert Arabia, to the black of the province of Yemen.

From these observations it results, that the causes of colour and of other varieties in the human species have not yet had their full operation on the inhabitants of the United States. Such an operation, however, they have had as affords a striking proof and an interesting example of the powerful influence of climate.*

government; and, being few in number, and chiefly of the military order, have had no sensible effect on the character of the population. They form a part of the soldiery of the empire, or rather of the guards of the prince; they have never become cultivators of the soil.

* The reader will always bear in mind that in remarking on the changes which have passed on the Anglo-Americans, I have in view chiefly the natives of the second and third generation from their European ancestors, or even a more distant posterity if there be such. Although a few exceptions from each remark may be pointed out, yet they will not be regarded as sufficient to overthrow conclusions drawn from the great mass of population. They will be rare among those who have had a clear American descent by both parents through two or three races. They will be much more rare in the low countries near the sea, in the middle and southern states, where the climate differs more from that of Europe, than in the northern portion of the Union, or the western counties of the southern

Before leaving the illustration of this article it may contribute to confirm the doctrine of the power of climate to affect the human complexion, to point out, in a few instances, its operation on the colour of the inferior animals. Analogy often affords a solid ground of reasoning. And, on this subject, we may strengthen our conclusions by analogous facts which are known to take place in different species of the animal tribes. It has been remarked by several writers, that, whether we ought to ascribe the effect to any peculiar constitution of the atmosphere, or to the manner of feeding, swine, in the province of Normandy in France, are universally white ; in Suabia in Germany, on the other hand, they are every where black ; while they are seen only of a chesnut brown in Bavaria. Cattle of the beeve kind are in Hungary of a whitish grey ; which is likewise the case in the northern parts of Syria ; except, that the Syrian cattle are whiter than the Hungarian. In the coun-

states, where the country rises into high hills, and is diversified with ranges of lofty mountains. Here the character of the climate is less removed from that of Britain, or of the middle of Europe. And in the western parts of the middle and southern states the population is more mingled with recent emigrants from Ireland and Germany.

try of Angora in the centre of the Lesser Asia, the goats are of a beautiful milk white colour, the hair over the whole body being remarkably fine and disposed in long spiral ringlets.* It is now well known to every voyager, that, in the climates in which extreme cold prevails, foxes, bears, hares, even falcons, crows, and several other birds and beasts are generally found of a white colour. And that this effect is to be ascribed to the prevailing cold of the climate is rendered the more certain, because, in those regions posited a little farther to the South, in which the moderate warmth of summer, during a few months replaces the excessive rigors of winter, these animals change the colour of their feathers, and their furs in the respective seasons. On the other hand, Beekman,† and other navigators assert that on the coasts of Guinea, and in various districts of the torrid zone of Africa, many of their domestic animals, and particularly their dogs, and common poultry, as well as the human inhabitants, are uniformly black.

* This is the material of which our finest camlets are made.

† His voyage to and from Borneo, Lond. 1718.

If, then, in animals acknowledged to be of the same species, we perceive such differences of colour, created by the climate, or region in which they exist, why should we not equally admit its power on the complexion of man? This ground of reasoning is conformable to principles which have been universally received in the philosophic world, on subjects of natural science, since the age of Newton. Of natural effects of the same kind, the same, or like causes, ought to be assigned, as far as possible.—And more causes ought not to be accumulated in explaining the phenomena of nature than are sufficient to account for them, and are supported by clear experiment, or by obvious analogy.

Hitherto the facts which have been adduced, and the reasonings founded upon them, have tended chiefly to explain the principle of colour and to account for the varieties of complexion, in different portions of the human race; and, in the first place, to demonstrate the influence of climate on these affections of the skin. I proceed now to illustrate its power in giving existence to other varieties, which distinguish different nations.

It would be difficult, as it is unnecessary, to enter into a very particular description of every part of the human body, or even every feature of the human countenance, and to trace each change of which they are susceptible to their respective causes. If we are able satisfactorily to account for the principal changes, a reasonable and candid enquirer after truth ought to remain satisfied that all minuter ones are within the power of the same or similar causes, without having recourse to the superfluous, and, consequently, unphilosophical doctrine of different original species of men. I shall, therefore, confine my observations, principally, to those conspicuous varieties which are seen in the hair,—the figure of the head,—the proportions of different parts of the body,—and in the features of the face.

The colour of the hair generally follows the law of the complexion;* because, its roots, being planted in

* There are instances in the southern states of America and in the West-Indies of white children derived from black parents of the darkest African hue. There are also instances of pided negroes, whose skin is variegated with black and white spots, some from their birth, and others who have changed their colour at different ages. But wherever this colour has affected the skin of the head beneath the hair, the colour of the hair has been changed with it. Dr. Blumenbach mentions a

the skin, derive its nourishment, and its colour from the same secretion which there contributes principally to form the tint of that various covering of the body. Every gradation of shade in the skin is usually accompanied with some correspondent shades in the hair. The pale red, and sandy complexion, on the other hand, or the sandy spotted with dark orange freckles, is almost always connected with a proportional redness of this excrescence. Between these two points is found almost every other colour of the hair arising from the mixture, in different proportions, of the principles which constitute the black and red. White hair, except that which is occasioned by disease, or age, is commonly united with the palest skin. White appears to be the ground on which the colouring substances of the red and black are variously stained. These, which may be re-

black man whom he saw in London, [p. 150. § 48.] who after the period of adolescence became pied. The white colour affecting an angular spot in the fore part of his head, from the crown to the forehead, the hair on that portion of the skin assumed a yellowish colour.

Another example has been mentioned in a note at the 36th page of this essay in a young negro of sandy complexion with red wool.

garded as extremes, seem nearly to approach each other ; and, by a very small alteration of the secretions of the body, easily to pass into one another.* If, in a red or black haired family, a child happens to deviate from the law of the house, it is commonly to the opposite extreme. The Highlanders, who inhabit the hills in the North of Scotland, are divided between these two colours. And a red beard is not unfrequently joined with black hair.

On these facts it deserves to be remarked, that those philosophers who deny the identity of the origin of different nations, because one is black, and

* J. R. Foster, in his remarks on the inhabitants of the South-Sea islands observes that among the Otahaitans we sometimes meet with red hair, though black is the habit of the island. Other voyagers have made the same remark on the people of Timor, the Papuans, and even on the inhabitants of Congo in Africa. Mr. Bruce found several instances of red or yellow hair among the Galla tribes in Abyssinia ; and Charlevoix informs us that such instances also exist among the Esquimaux. The young man mentioned in the last note who was of a fair and sandy complexion though born of black parents, may be given as another example to the same purpose. And, in general, we see that those persons both in Europe and America, who are distinguished by the reddest complexion of the hair, have also many, and very dark coloured freckles scattered over the whole surface of the skin ; and especially in those parts which are most exposed to the sun and air.

another is red, might, on the same ground, deny identity of origin to the children of the same family.* From such examples, at least, we derive a practical proof, that there is in human nature a susceptibility

* The argument that difference of colour does not demonstrate diversity of origin, is still more strongly established by the fact mentioned in the last note of p^{ied} negroes descending from black parents, not unfrequently to be met with, and more strongly still by such examples as that of Henry Moss, referred to in pages 92 and 93, who from a perfectly black man became entirely white, without any disease, or exhibiting the least symptom of scrophulous or albino whiteness. These, and similar facts, which we find recorded in various literary registers of the greatest credit, indicate that the black, or the white, the brown or the fair complexion may depend, in a great degree, on the peculiar action of the fine vessels in the skin which are affected by various causes in different persons, or at different times, by which, in one case, they may be more disposed, than in another, to secrete, and, at its approach to the oxygen of the atmosphere, to precipitate and deposit in the reticular membrane, that carbonaceous substance which has before been shewn, in many instances, to mingle copiously in the circulation, and, to form, at the surface, one of the chief causes of the various dark shades of the human complexion. This peculiar action of the minute vessels of the skin may sometimes be different in one part of the body from that of those in another, and produce that p^{ied} appearance which is observed in some negroes ; and which has been seen also in some persons originally white. It may be very different in the same person at different times according to the state of the body. The history of medicine furnishes a variety of instances, especially of women during a state of pregnancy, who, in particular parts of

of great varieties which may be incorporated into the constitutions of families, and of nations, without impairing any of the essential properties of the species. And I may here be permitted to anticipate an observation which, perhaps, would come with more force after having considered other distinctive properties which discriminate the various tribes, or races of men; but which will be of use to be borne in mind through every stage of the following illustration. If we have reason, from the varieties, in the midst of resemblance, which are often seen to exist in the same family, or the same tribe, and which are not less than those which discriminate the Danes, the

the body, and sometimes in the whole person, have become much more dark in their complexion; and of some who have, in that state, become absolutely black; but have returned, after they were relieved of their infant load, to the original fairness of their skin. De nos jours une pærielle métamorphose s'est renouvelé annuellement dans la personne d'une dame de distinction d'un beau teint, et d'une peau fort blanche. Dès qu'elle étoit enceinte, elle commençoit à brunir, et vers la fin de sa grossesse elle devenoit une véritable *Ngresse*. Après ses couches la couleur noire disparoissoit peu à peu, sa première blancheur revenoit, et son fruit n'avoit aucune teinte de noir.—Bomare, apud Blum. 156.—Et le Cat loc. eod.—Une paysanne des environs de Paris, nourrice de son métier, a régulièrement le ventre *tout noire* à chaque grossesse, et cette couleur se dissipe par l'accouchement.

French, the Turks, and even nations more remote from one another, to conclude that all these people have originally sprung from one stock, and belong to the same species, have we not equal reason to conclude that the nations beyond them to the North, the East, and the South, and who do not differ from the last by more conspicuous distinctions than the last differ from the first, belong, likewise, to the same species? By pursuing this progression we shall find but one species from the equator to the poles.*

The hair, and that excrescence which is analogous to it, called wool, is, in all animals, greatly affected by the temperature of the climate. Widely different is the coarse black shag of the American bear, from the fine white fur of the same animal under the extreme rigor of the climate of Greenland. The bea-

* Men frequently deceive themselves upon this subject by bringing together at once the most distant extremes, without patiently tracing the intermediate grades which, in every step of the progression, touch upon one another. The extremes surprize us by their dissimilarity : but, passing along the minute gradations which serve to reunite them, the mind perceives in this wide difference merely the result of the actions of the same physical laws in successive climates, or positions of the human race.

ver, removed from the frozen regions of Upper Canada to the warm latitude of southern Louisiana, exchanges its delicate fur, for a much harsher substance which preserves the body of the animal in a more comfortable temperature. A similar change has been observed to take place on the wool of sheep removed from Europe, or the United States, to the islands of the West-Indies. A sheep taken from the rich pasture, and the cool but temperate climate of England to the parched and arid coast of Africa, soon exchanges its fine warm and involved fleece for a coat of hair nearly as straight and coarse as that of the camel, which fits the creature to bear the ardors of a sun, that would be otherwise intolerable. Yet, no philosopher imagines that these varieties are indicative of a difference of species : but all who are acquainted with the powers of nature easily perceive that the Creator has adapted the pliancy of his work to meet the various situations in which he may have destined it to exist.

The fineness and density of the hairy, or woolly covering of most animals found in different regions, is increased in proportion to the intensity and predominance of cold. Hence the excellence of Canadian and Russian furs, and the fineness of the wool

of the sheep of Thibet.* Cold, by contracting the pores of the skin, renders the hair of a finer diameter and texture; and, by the same cause, collecting at the surface a greater quantity of the perspirable matter, which, in warm climates, passes off by transpiration, it forms a more abundant nutriment of this excrescence, and is there converted into a coat of increased density, as well as fineness.

The colour of the hair we have likewise seen to be, in many instances, affected by the temperature of the climate. The bear becomes white beneath the arctic circle. And black foxes are found only in the coldest latitudes. And when we contemplate the varieties of the human race, we frequently see nations distinguished from one another by some peculiar quality of this excrescence. The hair of the Danes is generally red, of a lighter or deeper shade.

* Sheep with a fine wool are sometimes reared in the middle latitudes of the temperate zone, but it is only in countries of a very mountainous face which present a mild and cool region on the sides and summits of their hills. And although Thibet, which produces such fine wool, might be regarded, from its latitude, as belonging to the warmer regions of the temperate zone, yet by the elevation of its surface consisting chiefly of bleak mountains, whence issue rivers of vast extent, and of rapid course, it suffers a rigor of climate equal to that which prevails many degrees farther to the North.

That of the French is commonly black. And the most frequent colours among the English are fair, and brown. Among the Highlanders of Scotland, the predominant complexions are black and red. Red hair is, likewise, frequently seen in the cold and elevated regions of the Alps, while black prevails in the warm vallies at the foot of those mountains; except along the northern frontier where it borders the German empire. The aboriginals of America, like all people of colour, have universally black hair, which is straight and grows in a thick coat upon the head. Black is that colour of the human hair which is most frequent; because those climates which are most favourable to the multiplication of the species, tend also to create different shades of the dark complexion. Nations which are not naturally distinguished by any peculiar colour of this excrescence, but have it diversified by different tints and shades, generally incline to the fair complexion. The great variety in the hair which is seen in England may, in some degree, be ascribed to the uncommon mixture of nations which has taken place in that beautiful and inviting island, either from early migrations to it, or from the successive conquests to which it has been subject.

But that form of it which principally attracts our attention, is the sparse, coarse, and involved substance like wool, which covers the head of the tropical African. This peculiarity has been urged as a decisive character of a distinct species with more assurance than became philosophers but tolerably acquainted with the operations of nature. The sparseness, and coarseness of the African hair, or wool, is analogous to effects which we have already seen to be produced by the temperature of arid climates upon other animals.—Its involution may be occasioned, in part, by the excessive heat of a vertical sun acting upon sands which glow with an ardor unknown in any other quarter of the globe.* But, probably, it is occasioned chiefly by some peculiar quality of the secretion by which it is nourished.† That the curl,

* According to the testimony of Mr. Bruce, and other travelers, in the sandy deserts of Africa the sands appear frequently to burn, and to emit a bluish flame destructive to life, unless a man, perceiving its approach, instantly falls upon his face and scraping a deep hole in the sand breathes below the surface while it is passing.

† It is manifest, says Blumenbach, that there is a strong sympathy between the liver, the laboratory of the bile, and the skin: and, as the influence of climate upon the secreting powers of the former is very great, it is proportionally great on the action

or nap of the hair depends, in a great degree upon this cause, is rendered the more probable by the appearance which it exhibits on the chin, over the arm-pits, and other parts of the human body. Whatever be the nutriment of the hair, it would seem, by the strong and offensive smell of the African negro, to be combined in him with some gas, or fluid of a very volatile and ardent nature.* The evaporation of

of the minute vessels of the latter by which that matter is supplied to the reticular membrane which becomes there the nutriment of the hair, and according to the qualities of this nutriment will the hair be affected in its colour, and other properties.

* Certain volatile and saline secretions tend to curl and involve the hair. Viscid and glutinous matters would produce a like effect. The strong smell of the negro, however, seems to indicate the union of sulphur with hydrogen gas, or inflammable air, and perhaps with an unusual proportion of phosphorus. These secretions, or at least their quantity or proportions may depend on some influence of the climate, or on the diet or habits of living of the people, all of which affect, as already suggested, the action of the minute vessels of the skin; and, in some instances, perhaps, may depend on certain constitutional peculiarities of organization, as a very offensive odour is found to issue from the pores of the skin of many white persons. Certain medicines of the fetid or sulphurous kinds are, in some cases, very sensibly perceived by the smell in the perspiration of persons who have been long accustomed to use them. And some whole tribes of savages are distinguished by a peculiar and very offensive fœtor, as is perceived in the inhabitants of the

such a gas rendering the surface dry, and disposed to contract, while the center continues distended, tends necessarily to produce an involution of the hair. This conjecture receives some confirmation from the fact that the negroes born in the United States of America, and especially the domestic servants, who are well fed and clothed, and who are bred in the habits of all the neatness and cleanliness which prevails in the mansions of their masters, are gradually losing the offensive odour that is perceived in most of the natives of the African zone. Their hair, or wool, at the same time, is becoming less involved. And many of those of the third race, or who are farther removed from their African ancestors, and who are careful in dressing it, frequently extend it in a braid or queue of several inches in length.*

southern point of the American continent, arising from the filthiness of their habits, the poverty, and wretchedness of their food, consisting chiefly of the rancid oil of seals.

* It is not much to the credit of the authors of the *critical review* in England that this remark, in the first edition of this essay, should have called forth their contemptuous smile. We often see these men at one time receiving with childish credulity the most ridiculous and extravagant tales transmitted by the

Another fact which has occurred to my own observation, and which I find likewise recorded in the Medical Repository of New-York, and is mentioned also by Dr. William Barton of Philadelphia, demonstrates that the involution and woolly nature of the hair of the African negro depends, in a great degree, if not chiefly, on the quality of its nutriment in the skin. Henry Moss, a negro in the state of Maryland, began, upwards of twenty years ago to undergo a change in the colour of his skin, from a deep black, to a clear and healthy white. The change commenced about the abdomen, and gradually extended over different parts of the body, till, at the end of seven years, the period at which I saw him, the white had already overspread the greater portion of his skin. It had nothing of the appearance of a sickly or albino hue, as if it had been the effect of disease. He was a vigorous and active man; and had never suffered any disease either at the commence-

ignorant travellers who have visited this country; at another, rejecting, with obstinate scepticism, the most certain facts. But who can forbear smiling, when, instead of the cause which is here assigned for the involution of the hair of the tropical Africans, they are pleased to ascribe it to the *tortuosity* of the pores in a black skin, and the struggle of the hair to push its way through them?

ment, or during the progress of the change. The white complexion did not advance by regularly spreading from a single center over the whole surface. But soon after it made its first appearance on the abdomen, it began to shew itself on various parts of the body, nearly at the same time, whence it gradually encroached in different directions on the original colour till, at length, the black was left only here and there in spots of various sizes, and shapes. These spots were largest and most frequent, where the body, from the nakedness of the parts or the raggedness of his clothing, was most exposed to the rays of the sun. This extraordinary change did not proceed by gradually and equably diluting the intensity of the shades of the black colour over the whole person at once; but the original black, reduced to spots, when I saw it, by the encroachments of the white, resembled dark clouds insensibly melting away at their edges. The back of his hands, and his face, retained a larger proportion of the black than other parts of his body; of these, however, the greater portion was changed. And the white colour had extended itself to a considerable distance under the hair. Wherever this took place, the woolly

substance entirely disappeared, and a fine, straight hair, of silky softness succeeded in its room.*

From this history, the truth of which is well known to great numbers of persons in the middle states of America, thro' which Henry Moss has travelled, and particularly to several literary men of great respectability, who have carefully examined the fact, result two or three inferences of no small importance in this enquiry. In the first place, that secretion in the skin which contributes chiefly to the formation of the negro complexion, seems to be the chief cause also of the curl, or woolly appearance of the hair: for, wherever the white colour in this man extended beneath the hair there the form of that excrescence

* The extraordinary nature of this phenomenon strongly attracted the attention and benevolence of the public; and the man obtained, from the liberality of those who visited him, a sum sufficient to purchase his freedom, with a surplus to be applied afterwards to his own use. I examined him in company with the Rev. Dr. Rodgers, and John R. B. Rodgers, M. D. of New-York, gentlemen, than whom none are more capable of observing and examining a fact of this nature with a sound and accurate judgment. Shortly after this period Henry Moss removed into the State of Virginia, since which time I have not had an opportunity of seeing him; but I have been informed by respectable authority, that the whitening process was soon afterwards completed, and that, in his appearance, he could not be distinguished from a native Anglo-American.

was entirely changed.—In the next place, although there was evidently a strong and general tendency in the constitution of this negro to a change of colour, yet, this tendency was much longer resisted in those parts of the body which were most exposed to the immediate action of the sun's rays than in others.* Whence I infer that where any dark colour has been contracted by the human skin, the solar influence alone, and the free contact of the external air, will be sufficient to continue it a long time even in those climates which are most favorable to the fair complexion.†

Although the principal cause of the peculiar form of the African hair, consists in those secretions which, being deposited in the cells of the skin become the nutriment of this excrescence, yet something may be ascribed also to the excessive ardor of that region of burning sand. Africa is the hottest country on the

* As he was a labouring man, wherever there were rents in the thin clothes which covered him there were generally seen the largest spots of black.

† It is found by experience that different shades of the dark complexion are easily impressed by different causes on a skin originally fair, and when once impressed, the slightest influence of the same causes is sufficient to continue it.

globe. The ancients who frequented the Asiatic zone without fear, esteemed the African an uninhabitable zone of fire. And modern travellers, who have explored the interior of that continent with the greatest intelligence and care, inform us that, although along the margins of the rivers Gambia and Senegal, and for some distance on each side, there are shady forests and a fertile soil, yet almost the whole region embraced between the tropics is a tract of sand that often literally burns. This state, not of the atmosphere only, but especially of the earth, in the dust of which young savages, utterly neglectful of decency of manners, often roll themselves, will have its effect in increasing the close nap of the wool, for the same reason that a hair held near a flame will coil itself up, or the leaves of vegetables be rolled together under the direct rays of an intense sun, when the earth is at the same time parched with drought.

A part of the population of Borneo, and the whole of that of New Holland, Mallicollo, and other islands, have likewise a very crisped and curled substance instead of straight and long hair, but in Africa alone do we find that extremely short and close nap which distinguishes the inhabitants of the western tropical region of that continent. The hair as well as

the whole constitution, suffers, in that region the effects of an intense fire.

The rude habits of an uncultivated people contribute to heighten the injurious effects of the climate. Being savages, they possess few arts to protect them from its intensity. Nor are they led by any refinement in their tastes of living, or their ideas of personal elegance to invent such arts, or to apply them, if they were acquainted with them, to improve their appearance. The African climate preserving the life of children without requiring those attentions in the parent which are necessary in colder regions, and under a more variable atmosphere, they are, perhaps, among the most negligent people in the world of their offspring.* The character of most nations

* If children, by their own instincts and natural powers, or by the favourable temperature and spontaneous productions of the climate, could as soon, and as easily provide for their safety and subsistence as some of the inferior animals, and were as little dependent on the care of the parent, parental attentions and filial duties would both equally cease, and with them all the delicate ties of family affection. Civilized society could, in that case, hardly ever have had an existence. The African savages approach nearer to this state than any other people on the globe. This is, perhaps, the principal reason why men have always existed as savages in the greater part of the African continent. Another reason, however, of this unfortunate

is chiefly formed by their situation, their employments, and the wants either real, or factitious, which press them. And it is observed of every savage people that, unless roused by some violent passion, or urged by some immediate want, they are always indolent. The African savage therefore, is as careless of his children as the American, compelled by the severity of the climate, and the hardships of his state, is attentive to their preservation and the perfection of their form. They are suffered to lie in the dust, or ashes of their huts, or to roll in the sand before their doors beneath the ardent rays of a vertical sun. The mother, if any other object calls her attention, or requires her labor while nursing her infant, lays it down on the first spot she finds, and seldom gives herself the trouble of seeking for it even the miserable shelter of a barren shrub which is almost the only shade that the interior country affords.* This treatment will contribute at the same

state of human society in that region is, that there the ingenuity of men is less called forth by the necessities of their situation; and fewer relations are created by mutual dependence, and the need of mutual assistance.

* I have been witness of this treatment of children by the slaves in some parts of the southern states where they are suf-

time to scorch the hair, and to add many shades to the darkness of the complexion. And the influence of this cause is verified from the following fact, that the hair is seldom of a deep and shining black, but rather of an adust colour, exhibiting at its extremities a brownish cast as if scorched by the fire.

ficiently numerous to retain many of their African customs, and where the necessary hardships of their state render them careless of the personal appearance of themselves, or their children. I speak of the field-slaves, who living in little villages on their plantations, at a distance from the mansions of their masters, are slow in adopting the manners, and ideas of their superiors. There I have seen the mother of a child within less than six weeks after its birth, take it with her to the field, and lay it uncovered on the ground beneath an ardent sun, while she hoed her corn-row down and up. She would then suckle it a few minutes, and return to her labor, leaving the child in the same exposure, although she might have found a convenient shade at the distance of a few yards. Shocked, at first, with the apparent barbarity of such negligence, I have remonstrated against it, but was always told that dry sand, and heat were never found to hurt children. And indeed custom will harden the human constitution to almost any suffering. Besides, it is well known that a black or a dark skin either from its thickness, from some refrigerating quality in the substance which contributes to its colour, or from the relaxation of the constitution which often accompanies it, renders the body more patient of heat, and less liable to inflammation, than one of fair and florid complexion. For this reason, as well as from their greater temperance, the French and Spaniards endure the heat of a West-India sun better than the British or the Irish, and are less subject, in that climate, to inflammatory disorders.

Having treated so largely of the form of this excrescence in those regions where it deviates farthest from the common law of the species, I proceed to consider other varieties of the human person which occur in different portions of the globe.

The whole Tartar race, except a few small tribes who have probably migrated into that country from other regions, are of lower stature than their southern neighbours on the continent of Asia, or than the people of the temperate latitudes of Europe. Their heads are large ;—their shoulders raised ;—and their necks short ;—their eyes are small, and appear, by the great projection of the eye-brows, to be sunk in the head ,—the nose is short, and is not so prominent as the same feature in the Europeans ; the cheek is elevated ; the face, somewhat depressed in the middle, and spread out toward the sides ;—and the whole appearance and expression of the countenance is harsh and uncouth. All these deformities are aggravated as we proceed towards the pole, in the Laponian, Borandian, and Samoiède races, which, as Buffon justly remarks, are only Tartars reduced to the last degree of degeneracy. A race of men resembling the Laplanders in many of their lineaments and qualities, is found in a similar cli-

mate in America. The frozen countries round Hudson's bay are as cold as Lapland or Kamtschatka. The few wretched natives who inhabit these inhospitable regions do not exceed five feet in height,—their heads are large,—their eyes are small and weak,—and their hands and feet remarkably diminutive.*

These effects are natural consequences of the extreme cold of their climate, combined with the hardships to which they are necessarily exposed in those frozen and sterile regions, from the deficiency, and poverty of their food, and their total want of every art by which they might protect themselves from the rigors of a polar winter. A moderate temperature of climate contributes to give tone and vigor to the body, and to expand it to the largest volume.

* These wretched and feeble people, although they have a great affinity in their appearance with the Laponians and the Greenlanders, are, however, still more degenerate, arising perhaps from their more wretched means of subsistence. Some savage tribes very similar in their appearance have been discovered in the high northern latitudes on the western coast of this continent, and in the islands lying in those seas which divide the continents of America and Asia where they approach nearest to one another. They will probably be found hereafter to extend entirely across the American continent in those latitudes.

Extreme cold produces a contrary effect; and the animal system under the constriction of perpetual frost, is irregularly checked in its growth. The intense rigor of the climate, by overstraining the constitution produces *indirect debility*, in those parts especially, which, being farthest removed from the seat of warmth, and source of circulation in the heart, are, consequently, most affected by its influence. Hence the hands, and lower limbs suffer the greatest contraction from the cold. The debility of these poor savages is greatly increased, likewise, by the poverty and scantiness of their diet, which occasions the blood to circulate with a feeble and languid motion to the extremities. But, flowing with more warmth, and acting with a stronger impulse in the head and breast, these parts of the body are increased in size much beyond the proportions which they usually bear in other nations to the hands, feet, and lower limbs. In a similar manner, though not in an equal degree, the Tartar nations are affected by the influence of their inhospitable sky. They are not indeed, sunk, in general, into such an abject state of savagism. And the climate gradually relaxes its rigor from the southern limits of the Samoiede and Borandian countries to Persia and Bulgaria. The

Tartars are a taller, and a much stouter race than the Laplanders, and the most northern tribes of Asiatics. Some of the Tartar hordes, and particularly the Tschutski inhabiting the north-eastern extremities of the Asiatic continent, are said to be distinguished from their neighbours by a nobler stature and finer proportions of person. They enjoy, at the same time, a more civilized state of society. And, is it not probable that, in the perpetual migrations of that roving people, some of the southern clans, possessing more agreeable, or rather, less distorted, features and persons, may have exchanged habitations with the ruder barbarians of the North; and have been enabled, by their superior civilization, to defend themselves against the worst effects of that severe climate?*

Other peculiarities in the appearance of the Tartar race, as the elevation of their shoulders, and the

* The principles stated above apply with little variation to all nations situated in very high northern latitudes, in proportion to the degree of cold which prevails in them combined with the savage degeneracy of manners, existing among the people. The cold in the high latitudes of Europe, it will be recollected, is much less severe than in those of Asia; and the state of civilization to which the inhabitants have arrived, enables them to defend themselves against its influence with much more success than is in the power of savages.

shortness of their necks, are referable likewise to the effects of extreme cold. Severe frost, especially where men are exposed to its action without adequate defences, almost involuntarily prompts them to raise their shoulders in order to protect the neck, and cherish its warmth. And when this cause acts with that constancy and uniformity which prevails in the frigid zone of Asia, it naturally produces a fixed habit of body. It resembles in its effects those artificial constrictions which are sometimes applied to the persons of children to alter the figure, attitude, or movements of particular limbs. In like manner those habits of the person which naturally result from the general temperature of the atmosphere, become fixed in time, and unchangeably incorporated with other peculiarities of the climate. Hence the Tartar neck must ever be short, not only because it suffers a proportional contraction with other parts of the system from the influence of cold, but, because the head and shoulders being increased in size, and the latter, particularly, being elevated above their natural position, necessarily encroach upon its length. And so much are they raised in many instances as entirely to conceal the neck, and

to give the head an appearance of resting upon them for its support.

That these peculiarities are purely the effect of climatical influence* is confirmed by the change which has passed upon the descendents of those Chinese families who have removed into that region of Tartary, to the North of the great wall, which is subject to the Chinese empire. In no very long pe-

* Climate, and even certain temporary constitutions of the atmosphere, are known peculiarly to affect particular parts of the human system. This is visible in many epidemic disorders, as in quinzies, peripneumonies, catarrhs, and in those diseases which are in a great measure confined to particular districts of a country, as the goiters among the Alps, and a disease very similar in its appearance, which is frequently found in the vicinity of Pittsburg in the state of Pennsylvania. If temporary constitutions of the atmosphere are found to give diseases a determination to certain parts of the system rather than to others, should it be strange that the habitual state of a climate, or of the atmosphere in particular countries, should affect some parts of the body more than others, so as to increase or diminish their size, or alter their figure? Certain medicines are likewise known to have a determination to one part of the body rather than another. But in the atmosphere are found the elements of all medicinal agents, existing in different proportions at various times. We might then, from analogy, have recourse, if it were necessary, which it is not, to some unknown atmospheric constitution to account for certain peculiarities of the Tartar as well as of the negro physiognomy.

riod of time, they have become perfectly assimilated in their figure and aspect, to the native Tartars. The French missionaries in China, who, during a certain period had perfect liberty, and enjoyed the best advantages to examine the interior state of the empire, assure us that they have been witnesses of this remarkable effect of the climate even as low as the forty-eighth degree of northern latitude.*

That coarse and deformed features, resembling those of the Tartar race, naturally result from the constant action of intense cold, will be obvious even on a slight inspection of the countenance exposed to a keen and frosty air. The aperture of the eye-lids is contracted in order to protect that delicate organ from the piercing influence of the wind ; the eye-brows are drawn together and made to overhang them ; the mouth is closed to prevent the air from entering too copiously into the chest and stomach ; the under jaw is closely pressed against the upper, which tends to give an unnatural elevation to the cheek ; the face, therefore, which is diminished in its length, is, in the same proportion, spread out at the sides ; and every feature, by the action of cold,

* See Recueil 24 des lettres edifiantes.

becomes more harsh and distorted than it would be in a mild temperature of the atmosphere. How much must this effect be increased in the poorer classes of society, whose laborious employments, and want of the conveniences which wealth may procure, expose them to the utmost severity of the climate? And how much more still in the abject condition of savage life?

The effect which I have just described, is in our climate, and in our state of society, necessarily transient, being effaced by the change of season, or by the conveniences which the arts have furnished to dissipate the cold, and restore the comfortable warmth of the body. But, in the inhospitable climate of Siberia, or Kamtschatka, where there is little remission of the intensity of the frost, it becomes a permanent habit of the countenance. The hardness and irregularity of Tartar features will be increased also by the rude manners of the people, which never induce them to put any constraint on the most disagreeable expression of their unpleasant sensations; and by their destitution of the chief arts and conveniences of society which might mitigate to their feelings the severity of the atmosphere. And this rigorous influence of the climate commencing its ac-

tion from the tenderest period of infancy when the features are most susceptible of impression, and begin to assume a settled habit, and continuing, and repeating it with little remission till they are fixed in the ultimate point of deformity, they there constitute the Tartar, Samoiède, or Esquimaux countenance.

The principal characteristics of that countenance, the causes of which may require further illustration; are the depression of the middle of the face, and the prominence of the forehead, in the northern Asiatic; and, in those people who inhabit the extremities of the North, both of Asia and of Europe, the general weakness as well as smallness of the eyes.

The middle of the face is that part which is most exposed to the immediate action of the cold, and consequently suffers most from its power of contraction, which tends to impede the growth of the parts. And a circumstance, perhaps not unworthy of notice, may deserve to be mentioned as contributing to increase the effect. Every person in a cold atmosphere naturally draws his breath more through the nostrils* than the mouth. This will, therefore, be

* A frosty air inhaled by the nostrils chills the body much less than taken in by the mouth. Nature therefore prompts

a common habit of all people inhabiting very cold regions. Thus the impulse of a chilling, and almost congealing current of air directed against that feature, and the parts adjacent, must greatly tend to restrain the freedom of their expansion.*

On the same principles, the next peculiarity, or distinguishing characteristic of the Tartar physiognomy, which is the prominence of the forehead, is easily explained. The superior warmth and impulse of the blood in the brain, which fills the upper part of the head, will naturally increase its relative magnitude; hence the forehead and the brows will be proportionably projected over the contracted parts immediately beneath them.

The eyes in those rigorous climates toward the North of Tartary, and in Lapland, are singularly affected. The prominence of the eye-brows gives them the appearance of being sunk in the head;

men almost involuntarily, in extreme cold, to keep the mouth closed, and even to press the jaws strongly together.

* By directing a constant stream of air against the bulb of a thermometer, touching it at the same time with any volatile fluid that by its speedy evaporation, will be continually carrying off some portion of the internal heat, the mercury, even in warm weather, will suffer as great a contraction as it would by many additional degrees of cold.

which appearance is increased by the contraction of their lids occasioned by extreme cold. And the intensity of the frost, concurring with the glare of the snows which, throughout almost the whole year, cover the surface of the earth, so overstrains these tender organs, as to render them generally weak; and, among the most northern tribes, blindness, even at a very early age, is a frequent disease.

In the temperate zone, on the other hand, and in a latitude rather below than above the middle region of temperature, the agreeable warmth of the atmosphere disposing the body to the most free and easy expansion, will open the features into the most pleasing and regular proportions.* Here the large full eye is that form of this feature to which the climate naturally tends; whence, in the strain of a Persian poet, *the eye of the antelope* ascribed to his mistress;

* In the continents of Asia and America, and the remark may be applied in some degree to Europe, the temperate climates and extreme cold border so near upon one another that we pass almost immediately from the mildness of the former to the rigor of the latter. Hence we find the Laplander, the Samoiède, the Mongou, and the tribes round Hudson's bay, in the neighbourhood of the Swede, the Russian, and Canadian. Without attention to this remark a hasty observer might suppose that the sudden change of features in people almost in the vicinity of one another, militates against the principles above laid down with regard to the effects of heat and cold.

and in that of a Greek, *the venerable large eyed Juno* in describing the dignified aspect of a goddess,* would convey an idea of female beauty or divine majesty to their respective nations, which can hardly be understood by an inhabitant of the North of Europe or of Asia. This is perhaps the reason that in Greece, in Georgia, between the Euxine and Caspian seas, and other regions distinguished by the peculiarly mild temperature of their climate, the human person is so often seen to display that perfect symmetry of parts, and those beautiful proportions, which most nearly correspond with the original idea of the Creator.†

The African face, confining that designation of countenance chiefly to the torrid zone of western Africa, is distinguished by the depression of the nostrils, and the thickness of the lips, accompanied by a peculiar projection of the fore-teeth arising from

* BO-OPIS POT-NIA HE-RE.

† Chardin asserts that in Georgia he saw the most beautiful people of all the East, and, perhaps, of the world. I have never observed, says he, one homely countenance of either sex in that country. Nature has shed upon the greater portion of their women graces, no where else to be seen.—Chardin's Travels, vol. i. p. 112, 171.

their oblique insertion into their sockets. The forehead is narrow, and generally wrinkled ; while the eyes, and brows suffer a remarkable contraction. It is difficult, indeed, precisely to point out those physical influences on which these several effects respectively depend. Something is probably to be ascribed to climate, as almost all people within the torrid zone have the mouth larger, and the lips more protuberant than the nations within the temperate latitudes. Somewhat also, is, perhaps, justly imputed to the state of society, and the habits of living ; as it may be observed, I believe, of all the savage tribes of men, where they are not emaciated by want, and their features shrunk by the poverty of their diet, that they are marked by a certain elevation of the cheek, and turgidity of the mouth.* And as the distention of the features in one direction naturally tends to produce a correspondent contraction in another, the protuberance of the mouth, and turgidness of the lips, or any great prominence of the cheek, or dilatation of the face, is commonly conjoined with a proportional depression, shortening,

* Some account of this appearance will hereafter be attempted in treating of the effects resulting from different states of society.

or sinking of the nose. Seldom, therefore, does this feature rise in tropical climes, or in savage life, to the same elevation which it has in the civilized nations of Europe.

Some travellers have endeavoured to persuade us that the depression of the nose among the Africans, is owing to an artificial operation practised upon their children in infancy. And it is certain that, ever since the days of Hippocrates, several barbarous nations, in order to form their children according to some fantastic model of beauty which they have conceived, have endeavoured, by violent compressions applied to the head, or to some particular parts of the body, to change their natural figure. We are not, however, sufficiently acquainted with the interior of Africa, and the customs of the different tribes inhabiting that continent, to enable us to pronounce any decided opinion concerning the consequences of this, or of other causes, dependent upon manners, which have been assigned for these effects by various writers.*

* Marsden in his history of Sumatra, and J. R. Foster, in his account of the Society Isles in the South Sea, and the authors on whose testimony the report of *the lords of the committee of coun-*

But, to whatever causes the appearance of these features in the natives of Africa ought to be ascribed, they seem to be in a great measure local; and dependent, at the same time, in some degree, on

cil, in England, *for the consideration of the slave trade*, is founded, assure us that among all these tribes artificial pressures are applied to certain features of their children. The latter particularly affirm that on the western coast of Africa, the nose of the new born infant is always flattened by violence. On the other hand, Barbot, in Churchill's collection of voyages, ascribes the effect, in part at least, to the custom of the poorer women, carrying their young children on their backs while travelling, or engaged in their daily labor, particularly the labor in which they are occupied every morning of beating or pounding their millet. The children, he supposes, by striking the mouth and nose continually against the shoulders of their mothers, at length render the one more depressed, and the other more turgid. In corroboration of this opinion, he affirms that these features in the better classes of the natives, are by no means so deformed as in the poorer and more laborious ranks. Whatever justice there may be in these observations in the extent which Barbot has given to the power of so small a cause, certain it is that the minutest causes by their constant action, are often productive ultimately of very great and important consequences.—Take for an example the ears of many boys, especially in the country, which being pressed forward by their hats in the day, and not restored by any bandage in the night, assume at length an habitual position, resembling that of the ears of a beast pricked forward, and listening to catch a distant sound. From some similar causes, perhaps, have arisen those tales, related by certain voyagers, of nations in the East who are said to have moveable ears capable of being erected like those of a horse, or a hare.

the manner of living. For, it is an undoubted fact, that the descendents of that race in the United States, are gradually losing these peculiarities so offensive to our eye. In those black slaves especially, who reside constantly in the mansions of their masters, and who are treated with that lenity and kindness which the greater portion of them who are placed in that situation, experience in these states, we often see the nose finely turned, and rising handsomely from the face ; and the lips, though gently swelled, have lost that unsightly protuberance so common among their ancestors in Africa. The African feature, however, vanishes much more slowly in those slaves who are subjected to the severer labors of the field, and the coarser, and less nutritious fare of the plantation quarters in the southern states. A fact which seems strongly to indicate that this variety of the human countenance does not depend merely on the influence of the climate, but is

Camper indeed has produced some very plausible facts for his opinion that the effects of violence upon the body, or of any customs which affect it only externally can never be transmitted by birth. The contrary doctrine, however, has been supported by the great names of Hippocrates, Aristotle, Pliny, and even by those greater naturalists Haller and Buffon.

connected also, in some measure, with the manner of living, and habits of the people. And this conclusion is corroborated by another fact existing within the region of tropical Africa. Many individuals are seen among the most deformed of their tribes, in whom these features are far from being disagreeable. These probably belong to the better classes of the people spoken of by Barbot. And there are several nations in that zone, and even on the western coast, in whom, what is peculiarly denominated the African countenance, is hardly to be distinguished.*

With regard to the contraction of the eyes, and eye-brows, the wrinkled appearance of the forehead, and the general expression of silliness, and uneasiness so frequently exhibited in the features of the aboriginal African, we may remark, that it is that

* Aikin says, "the people of Congo are represented as having little of the negro feature, though perfectly black with woolly hair." *Geog.* p. 299. edit. Phil. printed for F. Nichols, 1806. In the same edit. p. 294, he says of the Kaf-fers, or Kousis, "with this people European travellers have become acquainted in their expeditions from the colony of the Cape, and have found a remarkably strong and well made race, brave, and not unacquainted with the arts of life, and much superior in appearance to the neighbouring African tribes."

figure and habit of countenance which is the natural consequence of the intense ardor of the sun's rays darted directly on the head.*

Although the Barbary states, bordering the southern shore of the Mediterranean, lie under a milder

* As the intensity of the sun's rays falling on the superior parts of the head has a tendency to contract the forehead and the eyes, will not this effect, in consequence of the natural relations between different parts of the system, as already mentioned, contribute to the dilatation of the parts below, whence may be occasioned, in a degree, the unsightly protrusion of the mouth?—

In conformity with these observations, I find a reflection made by Mr. Volney in his travels through Egypt: "The countenance of the negroes, says he, represents precisely the state of contraction which our faces assume when strongly affected by heat;—The eye-brows are knit, the cheeks rise, the eye-lids are drawn together, and the mouth pouts out. This state of contraction to which the features are perpetually exposed in the hot climates of the negroes is become the peculiar characteristic of their countenance." And coincident, in some degree, with observations which I have before made on the effects of climate on the Tartar countenance, he adds;—"Excessive cold, wind, and snow produce the same effect, and thus we discover the same faces among the Tartars." Translation of Volney's Travels, Dublin edition, 1788, p. 49.—The last loose expression of Mr. Volney might lead an incautious reader into an error. The negro and the Tartar face are not *the same*, although both are distinguished by a depression of the middle of the face, and protrusion of the parts about the mouth.

sky than tropical Africa, yet posited so near that torrid climate, we might still expect to find, though considerably softened, many of its characteristic features. Accordingly we learn from the Roman writers that the people of that region, at least as high as the kingdoms of Numidia and Gætulia, partook in some degree of the negro countenance. But by repeated conquests, the aboriginal races have been so wasted, or blended with strangers, that hardly can the present population be said to bear any distinct and general characters of a national countenance. Egypt is, likewise, occupied by a mixed race drawn together from various northern climes, who hardly exhibit any national characteristic of face. But the Copts, who are believed to be the descendants of the ancient Egyptians, still present so much of the negro visage, as strongly to indicate that their remote ancestors were more nearly allied in their appearance to the nations beyond them to the South, than the present inhabitants of Egypt. The principal part of the present population being derived from ancestors who, within recent periods of history have migrated thither from different countries of Europe and Asia, have been enabled, by the arts of civilization, to preserve the lineaments of their Eu-

ropean, or Asiatic original; whereas the primitive people would naturally be more deeply marked with the characters of a climate approaching, as does that of Egypt, the tropical latitudes. And in proof of this opinion it is ingeniously remarked by Mr. Volney, that the face of the Sphinx, which exhibits a strong expression of the negro countenance, and was probably copied from the standard of face which chiefly prevailed, and consequently was chiefly admired among those who sculptured it, is a standing monument of the ancient Egyptian visage, and of its conformity, in many of its lineaments, with that of tropical Africa, with which region they must have had the most intimate relations.

The national or general countenances of many of the tribes and great communities of mankind receive their form and expression from the state of society, and the peculiar habits and manners which either the physical circumstances of the country, or the moral and political condition of the people have created among them; the illustration of which is reserved to another branch of this essay.* It is generally acknowledged,

* As particular examples we may take at present, the ferocious aspect of some savage tribes who are frequently engaged

indeed, that the soft, and mutable parts of the body are liable to considerable changes from the temperature of the climate, or from the influence of society and manners. But the bones which are hard and solid, and little subject to change, it has been supposed, cannot be affected in their figure by causes so minute, and almost insensible in their operation. Hence it has been inferred by some respectable anatomists, that the form of the skeleton, and especially of the skull, contains more certain indications of difference of species than the fleshy parts of the system. When, therefore, in comparing the skulls of an African, a Tartar, and a European, they find very considerable varieties in the shape of this principal bone of the skeleton, they esteem it a fair ground on which to conclude that these several races of men belong to different species.

This argument appears to me to be the result of a very negligent attention to the operations of nature. The bones, although they are certainly the least

in cruel and bloody wars, or the mild and benignant physiognomy of a Braminical indian ; the sprightly visage of a French comedian, or the demure and sad countenance often to be found in cloisters.

mutable parts of the corporeal system ; yet are evidently capable of increase, diminution, and change, and, during the whole course of life, are continually acquiring or losing some portions of their substance. Luxury, or simplicity in the habits of living possesses no inconsiderable influence on the firmness of their texture. An indolent and effeminate life, on the one hand, or habitual occupation in vigorous and athletic exercises on the other, affects both their consistence and their form.* Certain employments, or attitudes,† continued from early life, produce peculiar effects on the figure of particular limbs. And, in large manufactories in Europe it is well known that the negligence which necessarily takes place in those institutions in the care of children, where they

* Nor ought the narration of the historian to be deemed a fiction who informs us that the husbandmen, in turning up the fields in after ages on which the battles of Alexander and Darius were fought, could easily distinguish the skulls of the Persians from those of the Greeks by their extreme fragility.

† Some artizans are said to be known by their gait, or the figure, or attitude of particular limbs. And Mr. Forster informs us that the inhabitants of New-Zealand, almost universally have the joints of their knees much enlarged, from the general custom both in their boats, and on shore, of sitting on their hams.

are left with little assistance, and care, to struggle with all the difficulties of their first efforts to walk, and are afterwards confined to sedentary occupations, in which nature is restrained from freely unfolding her powers, it is a common thing to see the different limbs of the body suffer a great variety of distortions. And this is seen to take place without any extreme violence; but merely in consequence of being frequently thrown into unfavorable positions, while the bones were yet in their softest state; and by wanting that regular action which enables every part of the system most freely to expand itself. In infancy and youth, therefore, before the bones have attained their firmest consistency, these solid substances are susceptible of considerable alterations in their figure from the operation of very minute causes, and especially from the various and powerful action of climate. On the figure of the head, particularly, besides the climatical influences or the extraneous accidents to which it may be exposed, every action of every muscle affected in any way by the thoughts and passions of the mind, is calculated to make some impression. And although the separate impressions may be insensible, yet the accumulated result of an infinite number of the slightest touches

becomes very perceptible in a long course of time. Nor is the softness of muscular action a sufficient objection against the reality of this fact. What can be softer in its action than a drop of water falling from the height of a few inches? Yet, in time, it will wear a cavity in the hardest marble. What can be more tender than the young herb just sprouting from the seed? Yet, although the earth that covers it may be pressed down, and beaten hard, we see it, by the gentle impulses of its expanding fibres, and circulating juices, gradually swell, and, at length, break through the incumbent crust. Shall we deny, then, that the passions which often strongly agitate the mind, nay, that each emotion, each thought, by affecting the muscles which give expression to the countenance, and varying their tension, and, consequently, their pressure on different parts of the bony base of the head, may also affect its figure?—From these, and similar facts, some great physiologists have imagined that the figure of the skull, with its various protuberances and indentations, affords a certain criterion by which to judge of the intellectual powers, and moral dispositions of men.

On this subject, we may, perhaps be justified in affirming that the various strictures and relaxations

of the muscles about the head produced by the infinitely diversified actions of thought and passion will, in time, leave certain impressions affecting the exterior form of the skull. At the same time, the brain, the immediate organ of all the emotions of the soul, will, by its dilatations and contractions, contribute, in some degree, to mould the interior cavity in which it is embraced. On the other hand, the original figure of this receptacle of the brain, in different men, by giving it scope in some for a more ample expansion, and a freerer action; or, in others by compressing it in some parts of its orb, and thereby restricting the regularity, or freedom of its motions, may affect the operations of the mind, and thus lay a foundation in the organization or structure of the head for the existence and display of particular intellectual or moral excellencies, or defects. The original figure of the skull, therefore, may have an influence, not inconsiderable, on the developement and exercise of certain passions and affections of the mind, and on its peculiar powers of intellect or imagination; and, on the contrary, the habitual exertion of these powers, or indulgence of these passions, especially in the early periods of life, may reciprocally affect the figure even of that solid cell in

which the brain, the immediate organ of the mental actions, is contained. The physiognomonical science, indeed, with which these remarks are connected, may, probably, never be susceptible of very great accuracy, or extent, through our incapacity of disentangling perfectly the infinitely complicated, or of discriminating with nicety the infinitely fine lineaments, either in the form of the head, or the expression of the countenance, which indicate the character of the mind. Perhaps its pretensions have in some instances been already carried too far. Some great outlines, however, there are which cannot easily be mistaken, and which, to an attentive observer of nature, may furnish general principles, that may often be applied with considerable certainty in judging of the qualities of the understanding and the heart.

From the preceding observations, if they are founded in nature and fact, we are fairly entitled to infer, that some climates, and some states of society, and modes of living, by varying, in a less or greater degree, the form of the head, that organ which, by its figure, necessarily affects the operations of thought, are more or less favorable than others to certain exertions of the mental powers. And

we may infer further, that after a people have long cultivated science and the arts with success, or devoted themselves chiefly to certain occupations and pursuits, a greater general aptitude for those pursuits, or those arts may become hereditary among their descendents, till other causes arise to change their manners. The argument, therefore, for diversity of species in the human kind which some philosophers fancy they have found in the varieties of the skull in different nations, must be inconclusive, since so many causes, both physical and moral are found to operate material changes in the form of this part of the human skeleton.*

* That the climate, together, probably, with other physical causes, possesses some influence to create considerable alterations in the figure of the skeleton, as well as in the general exterior form of various animals, at least equal to the varieties which appear in the skulls of different nations, is evident from the whole history of zoology. Buffon assures us that the beautiful form of the Barbary race of horses soon disappears when they are transferred to France. The head of that animal reared in Naples assumes very much the configuration of that of a ram; and in Hungary the under jaw is seen to protrude forward considerably beyond the upper.

The effect of the state in which animals are placed, and their habits of living, is illustrated by a striking example in the skull of the wild boar; especially in its superior size and hardness, and the length and curvature of its tusks above those of the

But whatever differences anatomists have discovered between the skull of a Laplander, and that of a German or Hungarian between that of a Portuguese, and of a negro of Congo or Mitomba, of a Tartar and an inhabitant of the Mogul empire, fact and experience have amply demonstrated the power of the various causes which have been mentioned, to create these distinctions. The Finnish and Lapland races have been proved, by the affinity of their languages, to that of the Hungarians, to have been originally sprung from the same stock. The descendents of a Portuguese colony not three centuries old on the coast of Africa, are now no longer distinguishable either in their appearance, or their manners from the aboriginal inhabitants of the country. The Mogul race is known to have been derived from Tartary; and the Mogul countenance is only the Tartar fea-

common swine; all which must result entirely from their situation, and modes of life. In some counties in England the horns of their black cattle are remarkably long, and embrace a wide space within their curve; in Iceland these cattle are wholly destitute of this excrescence. Perhaps climate, and the manner of living both concur in the production of these opposite effects.—Natural history furnishes innumerable examples which demonstrate the influence of climate, and other physical causes, in varying, in different ways, the figure of animals.

ture softened by the climate of India, and by more mild and civilized manners.

But we must add to the effects of climate, and other physical influences in diversifying the figure of the head, the artificial means applied by several barbarian or savage nations, in order to attain some fantastic idea of beauty. Certain tribes among the American indians endeavour, by the use of particular kinds of ligature, or instruments of pressure, applied to the head of the new born infant, to change its natural form, and to give it one which they esteem more beautiful, or more martial.* And similar customs exist, according to the narrations of voyagers most worthy of credit, in many of the islands of

* Two nations among the northern tribes, are, from the shape which they give their heads, in the manner related above, distinguished by the denominations of *the round-heads*, and *the flat-heads*. This is attested also by Charlevoix in his history of Canada. Condamini, who spent a long time in South-America, informs us, in a memoir addressed to the Academy of Sciences at Paris in 1745, that the nation of the Omaguas have the fantastic custom of pressing the heads of their children, as soon as born, between two flat pieces of wood, in order to give the face the appearance of the full moon. The existence of similar customs in Lima, is further proved by a decree of the Synod or Council of that province, forbidding the indians to distort the heads of their children by putting a force upon nature.—At a Synod held in the city of Lima in the year 1585.

the southern ocean. This practice was not unknown to several nations of antiquity both in Europe and Asia. It is attributed by Hippocrates, to the Macrocephali; a nation near the eastern end of the Euxine sea. They moulded the heads of their children, he says, to the long figure, which their name imports, because they esteemed it a mark of noble and generous birth, and sentiments. And he supposes it was originally effected by certain bandages, or other means of pressure, employed by midwives and nurses in the earliest period of infancy. It is his opinion, likewise, that the various forms of the head in many different nations may be attributed originally to similar arts; because nature, says he, may, in time, be made to assume the shape of art; so that any obliquity of form artificially given to a particular member of the body, and repeated through many generations, shall, at length, be incorporated into the constitution of the race, and become hereditary.* Whatever estimate we may frame of this principle, which certainly derives no inconsiderable weight from the name of the great father of medical science,

* Hip. de aëre, and locis, &c. Sect. 3. edit. Fresii, p. 289, de Macrocephalis.

as well as from the names of several distinguished modern naturalists* who have embraced it, we may at least give him full credit for the existence of the custom. And such customs, becoming general in a

* Scaliger says that the Genoese, deriving the custom from their ancestors the Moors, flatten the heads of their children while asleep till now they are all born with both the head and the soul of Thersites. Comment. in Theophrast. liber 5. p. 287, de causis plantarum.—In this remark, indeed, we see the effect of the pique and resentment which Scaliger had conceived against the people of Genoa, but we see also the opinion of that great man, that certain habits of person, whether deformities, or otherwise, may be so ingrafted into the constitution by long custom as at last to become hereditary, and characteristic of a whole people.

Cardan speaks in the same way, lib. 5, cap. 43, de varietate, &c.—The Chinese have, by artificial strictures compressing the feet of their female children, rendered that deformity to a considerable degree, hereditary.—

Certain it is that neat cattle, horses, and other domestic animals, turned into the woods in the West of Carolina, in Louisiana, and other uncultivated parts of America, where they find but a scanty supply of food, and are liable to many accidents from their feebleness at certain seasons of the year, and the want of human care, not only become diminutive and deformed themselves, but, although brought back from their wild and savage state, and placed in the most favorable circumstances, will propagate a diminutive and deformed offspring for several generations. By proper attention, however, they are capable of being gradually restored to the size and beauty of the original European stocks from which they were derived; except in those places where a hot sun, and barren soil prevent the

nation will necessarily produce a change in the aspect of the whole people.

It is necessary, in the next place, to take some notice of the extravagant relations which have been given to the world by certain travellers, of the prodigious expansion of the ear which they observed in some barbarous nations of the East ; and of the no less extraordinary tales concerning the long and pendulous breasts of the African women in general, and especially of those tribes which inhabit the southern portion of that continent. Among the former they pretend to have seen people with such large ears that they could wrap themselves in their immense vol-

growth of a luxuriant herbage. In such situations, the size of the animal is necessarily contracted in proportion to the defect of nutritious food, or the prevalent excess either of heat, or cold.—

Such examples as the preceding seem to confirm, in some degree, the opinion of Hippocrates, Scaliger, and Cardan, which has been just mentioned, and of other respectable writers, who have embraced the same doctrine,—that any form of the body, or of any of its parts, produced not only by climate or the means or modes of living, but by any habit, the result either of climatical influence like the contracted eyes and forehead of the negro, or of national custom, like the small feet of the females in China, the long heads of the Macrocephali, or the flat heads of some of our indian tribes, is communicable to offspring by natural inheritance.

time; and among the latter, women whose breasts hung down like sacks below their knees, and, in some instances, even to the ground. The extravagance of these narrations ought to be sufficient to destroy their credit with all persons but tolerably acquainted with the natural history of the globe. Some families in every nation, and the inhabitants of particular districts of different countries have ears extended beyond the usual proportion which they bear to other parts of the head. In Spain the Biscayans are said to have them much larger than the people of the other provinces of that kingdom. Some savage tribes are known to stretch their ears by weights appended to them; which they esteem highly ornamental. And it is a common custom among our American indians, from a like false taste of beauty, to cut the rims of their ears, in a very artificial manner, into narrow strips, round which they wrap thin plates of shining metal, which weigh them down to the shoulders. But, such sheets of ear as were formerly spoken of by many travellers and even by Pliny, have not been discovered by recent and more accurate observers, and may safely be pronounced to have no existence.

A like remark may be applied to those narrations, the greater part of which one writer of travels has

borrowed from another, which have been so long vended by ignorance, or imposture, and received by credulity, concerning the protracted and pendulous breasts of the women of many uncultivated tribes, especially of Africa. The whole origin of those tales is probably to be found in the effect which poverty, great hardships, and exhausting toils, naturally have not only on savages but on poor women in the lowest classes of civilized society, to render their breasts, in time, flaccid and thin. This flaccidity, especially in advanced life, and after they have been much drawn by the suckling of children, does occasion their depending much lower than the breasts of women who have enjoyed plenty and ease. Ignorant travellers, who have not been accustomed to the view of naked savages, smitten with the love of astonishing their countrymen with a marvellous tale, or infected with the prejudices of little minds, which delight to depreciate and misrepresent whatever is seen in foreign countries, have given these exaggerated pictures of the length of the breasts of African females.* That climate, or other causes, in the benefi-

* Even Ireland not two centuries ago, when, however, it was rarely visited by English travellers, and was regarded with

cent arrangements of divine providence, may increase the size of these organs of the nourishment of infants, especially in regions, or states of society in which it would otherwise be peculiarly difficult to

contemptuous pride by its more powerful and wealthy neighbour, was sometimes subject to similar misrepresentations. Lithgow, in his *rare adventures and painful peregrinations*, says he saw women in the "*North parts*" of that island, I presume with traveller's eyes, *who could lay their breasts, or "dugs," as he calls them, over their shoulders, and suckle their children behind their backs.* He adds, that *they were more than half a yard in length*, and disdainfully compares them to *the money-bags of an East-India merchant, made of well tanned leather.* It is not wonderful then that more distant and savage countries should be more grossly misrepresented. There are, indeed, very few travellers who visit remote regions with a philosophic spirit, or even with the attention requisite for accurate observation. If they see a single fact which strikes them with surprize, they are apt, from it, to characterize a whole country; and if they observe somewhat extraordinary in the aspect or manners of a few individuals, or certain vices or follies which are only different from the follies and vices which are familiar to them in their own country, they make them a foundation for abusive calumnies and exaggerated and distorted pictures of a whole people. Indeed the ridiculous mistakes, or wilful falsehoods, or the prejudiced colouring given to almost all objects, which we find in the travels of the greater part of Europeans who have visited America, are sufficient to bring into doubt all extraordinary relations brought to us by such men from distant portions of the globe, or from any countries whose habits and manners differ from those of the writer.—The observation made above by Lithgow

find a proper sustenance for them, is not improbable. But a little excess above the ordinary scale of nature, or a little deviation from its ordinary standard, in any feature, or limb, has often afforded occasion for the most hyperbolical relations in the accounts which travellers have retailed of remote, or unexplored regions. And that such has been the source of the extravagances which I have just mentioned, in the descriptions given by several voyagers, who have just touched on the coast of Africa, of the pendulous breasts* of women in some of the Hottentot

on the *long and leathern dugs* of Irish women, renders it probable that he has seen a few of the laboring poor, discoloured by exposure to the sun, and exhausted with toil, and the scantiness of their provision, whose breasts, having, in consequence, become flaccid, and somewhat pendulous, and protracted, have given occasion to all this misrepresentation, the effect merely of foreign contempt, and false wit.

* Savage women, who generally carry their infants on their backs in long and irksome marches, or during their work, do, through necessity, or for convenience, often suckle them by making them reach over their shoulders; and for this purpose they endeavour to stretch their breasts to meet the mouth of the child. By the repetition of this practice, the breast may sometimes be drawn into an unnatural length. Some examples of this are seen among the American indians; and doubtless may be found among the African tribes. But indian women who are not exposed to uncommon hardships, and negresses in

tribes, as well as of that natural veil of modesty* which has been ascribed to them by others, there hardly now remains a doubt.

The peculiar form of the legs in certain nations may, from the manner in which they have been remarked on by several eminent anatomists, justly claim a portion of our attention.—Among the Tartar tribes some have these limbs remarkably short, and widely bowed between the knees. On the other hand, there are nations among the indians as much distinguished by their length. These constitutional peculiarities are with great probability ascribed to some influence of the climate or of the habits of society, or manner of living. This conjecture is cor-

the United States who are brought up in genteel families, are said to have breasts as well formed as the Anglo-Americans.

* Voltaire, who is equally a wretched philosopher and a brilliant wit, is fond of magnifying this veil that he may find in it one important character of a peculiar species. It is probably no more than that lax and corrugated skin on the abdomen which sometimes becomes pendulous in women who have borne many children, and especially in those who have suffered great hardships. Or it may be only a protraction of the labia, which takes place, as we are informed by anatomists, in some women of all nations; and which, in particular instances, may be very much increased by the filthy habits of several of the African tribes.

roborated by the known effect of climate and of the manner of feeding on different species of quadrupeds, and of fowls. Passing other instances, at present, I will take an example only from the neat cattle of Holland removed to the Cape of Good Hope. The deep bodies and short legs of the herds which feed in the rich meadows of Holland disappear entirely in the meagre pastures of the Cape ; and, in a few descents the whole race of the beeve kind are deformed with long legs, and comparatively narrow and lank bodies. It is observed, likewise, of the cattle in the United States, and especially in those states which lie southward from Pennsylvania, and in the districts eastward between the Apalachian mountains and the ocean that they are longer in the leg, and shallower in the body, than the British stocks from which they are derived. This effect, however, is, perhaps, less to be imputed to climate, than to the scantiness and poverty of their food in a country as yet imperfectly cultivated, and to the negligence with which they are guarded against the inclemency and changes of the seasons. For we find that, in other parts of America, in which the cattle are properly fed, and sheltered during the winter, and, in summer, suffer-

ed to run in rich pastures, they are often equal both in form, and size, to the finest stocks in England.*

The curvature of the legs, so frequently observed among the Tartar tribes, has, by Blumenbach after Pallas, been reasonably ascribed, as its chief cause, to the custom of placing their children on horseback almost from their infancy, and the constant habit of riding at that early age when their natural timidity and inexperience prompt them to embrace the animal forcibly between the legs and knees.

But that deformity of the leg which has attracted the greatest attention of naturalists and is thought to depart farthest from the beautiful proportions of the human frame, is the curve projecting forwards which is seen in most of the natives of the western coast of Africa, especially among the lowest orders of the

* Of this Mr. Jefferson gives several examples in the sixth section of his Notes on Virginia.

An ox raised near New-Haven in Connecticut lately passed through Princeton on his way to Philadelphia of the following dimensions and weight :—he was 16 hands high ; he was 18 feet in length from the end of the tail to the nose ; 12 feet in circumference round the body ; and his weight was 3400lbs.

Another ox has been exhibited in this town within a few days, raised in Morris county in New-Jersey, of the weight of 3500lbs. called by a piece of country wit, on account of his size, the *Morris county calf*. He was six years old.

people. For, savages, or barbarians as they are, their society is distributed into different grades ; and it is chiefly among the inferior, or servile classes that we find those uncouth features, and deformed limbs, which go to compose what we call the proper African person, and countenance. But among their princes and the superior ranks of their population, the human form is often seen in a high degree of beauty and perfection. I have limited my observation likewise, to the western coast of Africa principally ; because the same deformity does not exist among the Abyssinians, or the Caffres on the eastern coast, who are not depressed in such abject savagism ; and is hardly perceived among the natives of Aian, and Zanguébar, who, though nearly in the same latitude, enjoy a milder climate.

This region of Africa anciently furnished slaves to the Romans to be employed in the humblest offices, who were conveyed to Rome through Mauritania, and the territories of Carthage, and sometimes by the way of Lybia and Egypt. The gibbous form of their legs, with other African peculiarities, is remarked by Petronius ; and it appears both from him, and from Virgil that the same defects of person must have existed in that climate from the remot-

est periods of history.* But the climate is probably not alone to be charged as the cause of this deformity; for the neighbouring regions of Numidia and Mauritania have always nourished a straight and well proportioned race of men. And, as I have just remarked, even within that zone which exhibits, among the poorest and most servile race, the greatest deformities, you often meet, among their chiefs, with men of handsome features, and regular proportions. And Mr. Bruce informs us that, in the desert of Senaar on the eastern side of Africa, under the very tropic of Cancer, he saw, in the house of one of their chiefs, a woman of the most beautiful form; the most delicate skin, and the most lovely composi-

* Petronius, *Satyricon*, c. 102. *Atramento mutemus colores a capillis usque ad ungues. Ita tanquam servi Æthiopes—age, numquid et labira possumus tumore teterrimo implere? numquid & crines calamistro invertere? numquid et frontes cicatricibus scindere? numquid et crura in orbem pandere?*

And Virgil in his *Moretum*, l. 31—36:

Interdum clamat Cybalen: erat unica custos,
 Afra genus, tota patriam testante figura,
 Torta comam, labra tumens, & fusca colorem;
 Pectore lata, jacens mammis, compressor alvo,
 Cruribus exilis, spatiosa prodga planta;
 Continuis rimis calcanea scissa rigebant.

tion of features, he had ever beheld.* The cause of the gibbous leg of the vulgar African, therefore, we may find, not more in the climate than in some peculiar customs in the treatment of their children.

The manners of savages often result from the necessities of their situation. Among the North-American indians the mother is always obliged to bestow the greatest assiduity in her attentions to her infant in order to protect it from the injuries of seasons which are extremely variable, and often rigorous; and to provide it with food by her own labor, in the bosom of forests where little offers itself spontaneously to be gathered. At the same time, the hardships of a wandering and hunting life prevent the multiplication of children, so that, frequently, one is three or four years old before she is burthened with the care of a second. The necessities, therefore, of her state require, and the intervals between her children afford her leisure for, the exercise of every ten-

* Before this rencontre he informs us he had always connected the idea of perfect beauty with a fair complexion; but when he beheld this Senaar lady, he speaks of himself as being for some moments suspended in admiration: and he was at once convinced that almost the *all* of beauty consists in elegance of figure, in the fineness and polish of the skin, in grace of movement, and the expression of the countenance.

der and maternal care which her savage condition will admit. She consequently employs the utmost pains not only in providing for the safety and subsistence of her child during its infancy, but in forming its person to activity, beauty, and vigor, that it may hereafter be able to rely boldly on itself in hunting or in war, and in all the exigencies of its hazardous state.*

The African mother, on the other hand, is not under the same necessity to be perpetually solicitous for the safety and subsistence of her infant; nor does she feel the same motives to exercise such constant and minute attentions to preserve the erectness and activity of its person. The warmth of the climate, which is favorable to the multiplication of children, releases the mother also from much anxiety about their provision or their safety. It permits her, while employed in any other care, to leave them exposed naked to its influence without incurring those

* In her frequent, long, and painful marches, in order to preserve the limbs of her child perfectly straight, and to guard them against every accidental distortion which might otherwise affect it, she extends it upon a thin board, or plank, with its back towards the plank; and, that she may be able to preserve it perfectly in its position, small hoops are bent over it inserted at each end in the plank. In her marches she travels with

risks to which the delicate constitution of a child would be liable under a cold, and variable sky. The climate, almost spontaneously, or with very little labor, offers them abundantly, those fruits and roots which are proper for the nourishment and support of their children. While occupied, therefore, in cultivating the small spot of earth about her hut, or in other domestic cares, she often leaves even her youngest children for a long time together, wholly to their own management. This is a spectacle which is often seen also in the quarters of the African slaves in the southern states of America, and in the West-India islands. Children thus left, while their bones are yet in a soft, and almost gristly state, will be liable to many accidents that may distort the figure of their limbs, in their frequent struggles with their natural imbecilities, in endeavouring to move from place to place. In their first efforts, especially, to creep upon their hands and feet, the weight of the body, pressing upon the tender bones of the thighs

this board suspended at her back. And often, while occupied in her wigwam, she attaches the child to the same board, supporting it against the wall of her hut, or against the stock of a tree at her door, to save it from any untoward accident while her attention is otherwise engaged.

and legs in an oblique position, must tend to give them that gibbous form which is thought to be peculiar to the African race, but which is often seen among the poorest classes in other countries. But I must remark here, as I have already done concerning other characteristics of this race, that, whether the causes which have produced them be justly assigned, or not, certain it is, that, in the United States, they are gradually throwing off this gibbous deformity of the leg. Many of them, of the third or fourth descent, who have been trained in genteel families, and have not been pressed by excessive labors, are distinguished by straight and well turned limbs, and by those easy and graceful movements which can never be exhibited where the person is crooked or deformed. And this change is becoming daily more conspicuous. On the other hand, in those states in which an extensive slavery exists, and great numbers are collected on the respective plantations in small villages of huts at a distance from their masters' mansions, these field slaves, living chiefly by themselves, and being, in general, dirty, ragged, and badly fed; having, in consequence, little concern about personal beauty; and being urged at the same time by constant labors, and

obliged, therefore, to abandon their children very much to themselves, even in their earliest infancy, the peculiar deformities of the African race continue to subsist much longer, and in a much greater degree, among their descendents than among those slaves who always serve near the persons of their masters. This fact, which is obvious to all Americans, serves to confirm the opinion, that many of the peculiarities of the African person, and especially, the gibbous shape of the leg, are to be ascribed to neglect, and the wretched habits of living of those savages, not less, and perhaps more, than to any direct influence of the climate on the constitution.*

The size of the feet, in the next place, although affected in some instances by climate, as has before

* It has been remarked by some respectable voyagers that a small gibbousness of the leg, and probably arising from a similar cause, is a pretty general characteristic of the aboriginal inhabitants of the islands of the Caribbean sea.

And in all the great manufactories of Europe, in which young children are necessarily very much neglected, there is always a large proportion of crooked and deformed persons. This is true also of many persons in all the classes of extreme poverty in that country. On the other hand, in the United States of America where extreme poverty at present hardly any where exists, except in a few hospitals and alms-houses, a crooked limb, or a maimed person is rarely to be seen.

been rendered apparent, in the case of the Esquimaux, and other tribes far removed towards the North pole ; yet depends more on the artificial bandages by which they are confined, or the free expansion which is permitted to them in different countries. The Chinese repress the growth of the feet of their women by tight and painful ligatures. On the other hand, we see that those persons in the United States who pursue the labors of the field barefooted during the whole summer season, have their feet spread out to an extraordinary breadth, and proportionably extended in length.* From a like cause proceeds the large size of this member which is common to almost the whole African race. The foot of the African is never confined by a shoe, or any equivalent ligature ; it, therefore, receives the full expansion which the whole weight of the body, continually pressing upon it in that state, can give.† And the

* J. R. Forster in his account of Capt. Cook's last voyage, informs us that the natives of the Society Isles, though, otherwise a handsome and well proportioned people, have universally large feet, for which he assigns as the cause, the custom of going barefooted.

† Virgil's "*spatiosa prodiga planta*."

hot sand in which the negro constantly treads greatly incrassates the skin, and opens it on the edges round the sole of the foot in many small fissures,* which give it the appearance of hard scales.†

It is hardly necessary to enter into any minute enquiries respecting those great deviations from the ordinary standard of the human stature which have been reported to exist, particularly, in two different tribes of people, supposed to be the extremes of the human race; the one, a nation of dwarfs, said to inhabit the mountains of Madagascar;‡ the other, a

* “*Continuis rimis calcanea scissa*,” of the same author.

† Neither the expansion of the foot, nor the thickness of the skin, in that race is greater, in proportion, than that which takes place in the hand of a sailor, or a digger, which is enlarged and hardened by continual pressure on the ropes of his vessel, or the handle of his instrument.—The confinement of the shoe is gradually producing its natural effect on the feet of the domestic slaves, their descendents, in the United States.

From a cause directly the reverse of that which creates the enlargement of the digger’s, or the sailor’s hand, the hand of the American indian is small; for he never performs any labor with it; except drawing his bow, or throwing his tomahawk.

‡ This story which was entirely discredited in Europe by Flacourt, was revived after the middle of the last century by Commerson the botanist, who saw a pigmy girl in the service of the master of the ship in which he embarked from Madagas-

gigantic people pretended to be spread over the southern parts of the country of Patagonia, a region which has received its denomination from them, and extends from the Atlantic to the Pacific seas, along the straits of Magellhaens. But since the facts have been more accurately examined, the pigmies of Madagascar have been found to exist only in fiction, in mistake, or in great exaggeration, by which a few examples of the defects, or abortive births, of nature have been presented to us as a distinct race. On the other hand, the Patagonian giants have dwindled down to a race of men the average of whose stature is somewhat above that of the savage nations in their neighborhood.* This is equally

car. But the Baron de Clugny, who sailed in the same vessel, declares that she was evidently a diseased, and almost a monstrous offspring. She was of a chalky colour, with a breast very much depressed, and long arms. Her voice was stridulous, her head extended to a disproportioned length, and her whole appearance indicative of compleat stupidity.

* The average stature of the Patagonians has been determined to be about six feet, or but little more. And in the United States are many examples of men from six to seven feet in height; and several instances are known of men, who considerably exceed seven feet. Besides the general reasons which contribute to magnify the appearance of savage men in a new, and uncultivated country, one cause which helped to increase

true of various other tribes of the American indians ; and particularly of the Osages, a tribe situated on the South of the Missouri river, the greater part of whom are men of tall stature, and of robust, and athletic figure. The same was remarked by Tacitus concerning the ancient Germans compared with the inhabitants of the Roman provinces. But in all this, we see nothing more than the known effects of climate, of food, of culture, or of other natural causes, operating on animal bodies : in one region they are more slender, in another they are more gross ; here they are seen of lower stature, and there of taller and more noble port.

II. Having, thus far, endeavoured to point out the power of CLIMATE in the production of many of the varieties which distinguish different portions of the

the wonderful narrations of navigators concerning the size of the Patagonians was the discovery of graves among them of an extraordinary length, which, Mr. Brown, in his travels, assures us, arose, in some instances, if it was not a general custom of the country, from burying women at the feet of men ; probably wives at the feet of their husbands, and dressing up both graves with the appearance of one. Mr. Wood informed him of a grave twelve feet in length which upon examination was found to contain two skeletons, of a male and female, deposited in this manner.

human species, I proceed to illustrate the influence of the

STATE OF SOCIETY, AND THE HABITS OF
LIVING,

in creating other varieties, or in aggravating or correcting those which are occasioned by climate.

I join these two causes together in treating of them, because their effects are frequently so blended, that it is difficult, in many cases, precisely to discriminate them, and to assign each to its proper head.

In the first place, climate exerts its full influence, and produces its most deteriorating effects in a savage state of society.

And, in the next place, the peculiar character, and habits of society in which men are educated, and the modes of living to which they are either addicted from choice, or compelled from necessity, tend to create many differences in their complexion, their figure, the form and expression of their countenance, and in their whole aspect.

In the first place, then, climate produces its most deteriorating effects in a savage state of society ; and, on the other hand, these effects are, in some degree, corrected by the arts and conveniences of civilization.

A naked savage, seldom enjoying the protection even of a miserable hut, and often compelled to lodge on the bare earth under the open sky, imbibes the influence of the sun, and atmosphere, at every pore of his body. The American indian inhabits an uncultivated forest, abounding with stagnant waters, and covered with a luxuriant growth of vegetables which fall down and corrupt on the spot where they had grown. He generally pitches his wigwam on the side of a river that he may enjoy the convenience of fishing as well as of hunting. The vapor of rivers, therefore, which are often greatly obstructed in their course by the trees fallen, and the leaves collected in their channels, the exhalations of marshes, and the noxious gases evolved from decaying vegetables, impregnate the whole atmosphere, and give a deep bilious tinge to the complexion of the savage.* And

* The forests in uncultivated countries naturally absorb a great portion of the noxious miasmata with which the atmosphere is filled. They do not, however, absorb the whole. Nothing but a skilful agriculture can perfectly purify the air from the insalubrious exhalations created by the causes already mentioned. All uncultivated countries, therefore, tend to produce a bilious habit, and a dark complexion in the savages who range them. It may seem an objection against this observation that, in America we often perceive bilious disorders increase

the sun, acting immediately upon the skin in this state, necessarily impressed on it a very dark hue.

The darkness of the complexion is still further increased by the custom which prevails among them of painting their bodies : a custom to which these savages are often obliged to have recourse in order to protect themselves from the injurious effects of the moist earth, which frequently is their only bed

in consequence of extending the plantations. When a few acres only are cleared of their timber and wild vegetables, while the marshes around them are not drained, the trees and plants, which formerly absorbed the greater portion of the putrid miasmata, being taken away from the surface of the plantation, these unhealthful vapors consequently fall more copiously on the inhabitants. Besides, the heat of the sun is, in that case, very much augmented. For, while the plantation is scorched by its almost perpendicular rays, the surrounding woods obstruct the free, and refreshing currents of the winds. So that, frequently, excessive heat combined with the unhealthful moisture of the atmosphere will produce, for a time, an increase of those distressing disorders, till the country is laid entirely open to the powerful action of the sun, and the free course of the wind. In clearing a new country of its forests, and preparing it for cultivation, a large grove of trees should be left round the habitation of each planter or farmer.—These would detain, and, by their foliage, absorb in a great measure the hurtful vapors which would otherwise fall upon it ; at the same time, the fresh and refrigerating perspiration of so many trees would contribute to the salubrity of the air around, and within his dwelling.

during the night; and of an atmosphere, filled with noxious vapors, to the influence of which they are exposed without covering. Painting taken up at first through necessity, is afterwards employed as an ornament; and an indian is seldom seen without having his skin anointed with some composition that injures the fineness of its texture, and impairs the clearness of its natural colour. If this is the effect of the finest paints and washes which are used for the same purpose in polished society, much more will it be the consequence of those coarse and filthy unguents employed by savages. For if coloured marks or figures inserted by punctures into the skin, are known to be indelible, it is reasonable to believe that the particles of paints, insinuated into its texture by forcible and frequent friction will produce a deep and permanent discolouration.*

To this may be added the frequent fumigations by which they are obliged to guard against the annoyance of innumerable insects which swarm in un-

* These paints consist of substances unfit to be taken up by the absorbent vessels of the skin and received into the circulation: they are lodged, therefore, by the force of friction, just beneath the scarf which, being little subject to change, the discolouration is retained with great tenacity.

drained and uncultivated countries, and the smoke with which their huts, small and unskilfully built, are constantly filled. Smoke discolours every object long exposed to its action, by insinuating itself into the pores and adhering strongly to the surface. Hence it contributes somewhat to heighten the effect of so many other discolouring causes on the complexion of the American savage.

Lastly, the hardships of their condition, which tend to weaken and exhaust the principle of life;—their scanty, and meagre food, which wants that succulence and nourishment which give freshness to the complexion, and vigor to the constitution; the uncertainty of their provision, being sometimes left to languish with want, and on other occasions furnished with a superfluity, which tempts them to overstrain themselves by a surfeit;—and finally, their entire inattention to the cleanliness of their persons, and their huts, all have their influence to heighten the disagreeable duskiness of their colour, and to render the features coarse and deformed. Of the power of these causes in savage life we may frame some conjecture from observing their effects on the poorest classes in society, who are usually as much distinguished by their meagre habit, their uncouth features and their

dingy and squalid aspect, as by the meanness of their garb. Nakedness, exposure to the weather, negligence of appearance, want of cleanliness, bad lodging, and poor diet, are always seen to impair the beauty of the human form, and the clearness of the skin. Hence it results, that savages never can be perfectly fair. But when savage habits concur with the influence of an ardent sun, or an unwholesome atmosphere, the complexion of the people will partake of a tinge more or less dark in proportion to the predominance of one, or of both of these causes. Their features will be more coarse and hard, and their persons less robust and athletic than those of men in civilized society who enjoy its advantages with temperance.*

* A few examples, perhaps, may occur among savages of strong and muscular bodies, or of regular and agreeable features ; as in civilized society we meet with some rare instances of extraordinary beauty. Yet it is certain that the countenance of savage life is commonly much more uncouth and coarse, more unmeaning and wild, as will afterwards more distinctly appear when I come to point out its causes, than the countenance formed in polished society. And the person is generally more slender, and rather fitted for the activity of the chase, than for great exertions of strength. An American indian is commonly swift, but seldom athletic. And it has been remarked in the many expeditions which have been undertaken against the savages by the people of these States, that the

As a state of savagism increases the injurious influence of climates which are unfriendly to the complexion or fine proportions of the human constitution; civilization, on the other hand, by its innumerable arts and conveniences, contributes to correct that hurtful influence. The comfortable protection of clothing and lodging,—the plenty and nutritious

strength of an Anglo-American, in single combat, is usually superior to that of an indian of the same size. The muscles, likewise, on which the fine proportions of the person so much depend, are generally smaller and more lax in them than among a civilized people who are not corrupted by luxury, or debilitated by sedentary occupations. Their limbs, therefore, though straight, are less beautifully turned.—A deception often passes upon the senses in judging of the beauty of savages; and it is often very injudiciously exaggerated in description. We do not expect beauty in savage life. When, therefore, we happen to perceive it, the contrast which it presents to us with the usual condition of men in that state affects the mind with a degree of surprize that very much promotes the deception. And the exalted descriptions of savage beauty which we sometimes read are true only by comparison with savages. There is a difference, in this respect, between man, and the inferior animals which were formed to run wild in the forest. They are always most beautiful when they enjoy their native liberty. They decay and droop when attempted to be confined and domesticated. But man, being designed for society, and civilization, attains, in that state, the greatest beauty of the human form, as well as the highest perfection of his whole nature.

qualities of food, and the skilful means of preparing it for use, and rendering it more healthful,—a country freed from noxious effluvia, and subjected to cultivation,—the constant study of elegance, with improved ideas of a standard of beauty for the human form,—and the continual effort made to approximate this standard, in ourselves, or to form our children to it by a proper culture, give an immense advantage, in this respect, to cultivated society over savage life.

2. I come now to observe, what is of much more importance on this part of the subject, that all the features of the human countenance are *modified*, and its whole *expression*, in a great measure, formed by the state of society in which men exist.

Every idea, and every emotion which is excited in the mind, affects, in some degree, the features of the countenance, the index of our feelings, and contributes to form its infinitely various lineaments. Paucity of ideas, and of objects to call forth the exercise of the understanding or the passions, marks the countenance with a vacant and unmeaning aspect. Agreeable and cultivated scenes enliven and animate the features, and tend to render them regular and soft. Wild and solitary forests impress on

the countenance some image of their own rudeness. Considerable varieties are created even by diet, and the different modes of preparing it for use. A diet composed chiefly of raw and uncooked meats is generally accompanied with ferocity of aspect. And among the various methods of preparing food in civilized nations, some are undoubtedly more favorable to health and vigor, and consequently to personal beauty, than others. Hard fare, and exposure to the injuries of the weather render the features of savages, and the poorer classes of society, coarse and uncouth. The infinitely diversified attentions of men in polished society give great flexibility and variety to the expression of the countenance. The defect of interesting emotions, or of the habits of attention, and thought, leave its muscles lax and unexerted; whence they assume a swoln appearance, and distend themselves to a grosser size.* A general and national standard of beauty, likewise, which is usually aimed at in civilized society, and which, in some respects, is various in different countries, has its effect in forming the fea-

* Several of these reflections shall be illustrated more in detail hereafter.

tures and fashioning the person. Every passion, every emotion, every thought which passes through the mind has its peculiar expression. Each single touch, if I may speak so, may be so fine as to be imperceptible ; but frequent repetition will at length, trace on the countenance very distinct lineaments. And these minute causes may again vary their effects according to their respective degrees of strength, according to their combination with other principles, and according to the constitutional peculiarities of individuals, or of nations, that form the ground on which the different impressions are received. And, inasmuch as the advances made in the arts, the prevalent ideas, pursuits, and moral habits of men in different countries, and under different forms of government, are infinitely various, they open a boundless field for variety in the human countenance. It is impossible to enumerate all these minute varieties.* They are not the same in

* From various combinations of the causes that have been suggested, and others of a similar nature, we often see different characters of countenance, and habits of body, and even different habitual attitudes, and modes of moving the person, not only in different nations, but in different cities, and districts belonging to the same country. Libavius, a German author, re-

any two nations, nor in the same nation in any two ages. It would be unnecessary to enumerate them, as my object is, not to enable my readers to become physiognomists, but to suggest a proper mode

marked above two centuries ago, this variety in his own nation. "There is one countenance, says he, belongs to the Thuringians, another to the Saxons, and a different one to the Swedes. Indeed each village almost has something, in this respect, peculiar to itself, so that a person who would accurately attend to this subject might nearly pronounce on the country of a man from his physiognomy."—Yet besides these smaller local differences, there is commonly a general cast of countenance, arising from the influence of government, religion, civil occupations, and other causes, which belongs to each nation, and serves to distinguish it from others.

In conformity with the observation of Libavius, and with what I have said above, Camper remarks that it is easy to distinguish at the first view, Jews from Christians, Spaniards from Frenchmen, or Germans, and these again from Englishmen. We can distinguish, says he, the inhabitants of the South of France from those of the North, except where they have been blended by marriage. The cities of Holland, where so many people have been mingled together, no longer present to us distinct features of a national countenance. The inhabitants of the islands only still possess their primitive features entire. In Friesland, for example, the inhabitants of Hindelopen, Molkwerum, and Koudum, still exhibit their thin face, and their length of jaw; while those of Bildt, by their short face all crowded together, differ entirely from their nearest neighbors, who inhabit, however, the most ancient portion of the country.

Each people then forms to itself some distinguishing national

of reasoning on each new difference among mankind as it occurs to our observation.

For this purpose, I shall endeavour, in the first place, to evince by several facts and illustrations, that the state of society in which men live has a powerful influence in varying the character of the countenance, and even in changing the habit, and appearance of the whole person.

And, in the next place, to shew that some of the most distinguishing features of the savage, and particularly of the American savage, with whom we are best acquainted, naturally result from the rude condition in which he exists.

The influence of the state of society, and of the modes of life which prevail among different nations,

traits, till at length the mixture of different nations coming in among them effaces this characteristic distinction. Wars, migrations, commercial intercourse, have so confounded nations, anciently posited at the greatest distances from one another, that we can no longer perceive that primitive and specific impression which originally distinguished them. As most neighboring countries, however, form in time pretty intimate connections, they become gradually so blended, that now we do not often perceive very striking and characteristic differences of national countenance but among people whose actual, or present positions are removed from one another at very considerable intervals. Chap. i. p. 13, 14.

or tribes of men, to produce some variety or change in the complexion, and even in the form and proportions of the person, may receive illustration from the variety of aspect exhibited by the higher and lower classes into which the people of almost all nations are divided ; and who may be regarded, in some degree, as men in different states of society.

The poor and laboring part of the community in every country, are usually more dark in their complexion, more hard in their features, and more coarse and ill formed in their limbs, than persons of better rank, who enjoy greater ease, and more liberal means of subsistence. They want the delicate tints of colour, the pleasing regularity of features, and the elegant and fine proportions of the person so frequently seen in the higher classes. Many particular exceptions undoubtedly there are. Luxury may disfigure the one,—a fortunate coincidence of circumstances may give a happy assemblage of features to the other.* But these exceptions will not

* It should be kept in mind through the whole of the following illustrations, that, when mention is made of the superior beauty of persons in the higher classes of society, the remark is general. It is not intended to deny that there exist many exceptions both of deformity among the great, and of beauty

invalidate the general observation. The distinctions which subsist between the several classes of society become more considerable by time, after families have held, for ages, nearly the same stations. But they are more conspicuous in those countries in which the laws or customs of the nation have made the most complete and permanent discrimination of ranks. In Scotland, for example, how wide is the difference between the chiefs of the Highland clans, and the tenants and laborers of the land! A similar distinction takes place between the nobility and peasantry of France, of Spain, of Italy, of Germany, and especially of Poland, because there the vassalage of the peasantry is more oppressive than in any other country in Europe. The noble, or military class in India has been pronounced by some travellers to be composed of a different race of men from the populace who are their traders, and artizans; because, the former, elevated by their rank above them, and devoted only to martial studies and achievements, are distinguished by that manly beau-

among the poor. And the general remark is intended to be applied only to those who enjoy their fortune with temperance; because luxury and intemperance tend equally with extreme poverty and hardships to disfigure the person.

ty so frequently found united with the profession of arms; the latter, poor and laborious, exposed to innumerable hardships and privations, and left, by their laws and their religion, without the hope of improving their condition, or the spirit to attempt it, have become timid and servile in the expression of their countenance, diminutive, and often deformed in their persons, and marked by a deeper shade than their superiors in their complexion. In France, says Buffon, you may distinguish by their appearance, not only the nobility from the peasantry, but the superior orders of nobility from the inferior, these from the citizens, and the citizens from the peasants. You may even distinguish the peasants of one part of the country from those of another, according to the fertility of the soil, or the nature of its product. —And I have been assured by a most judicious and accurate observer of men and manners, a native of Scotland,* that there is a sensible and striking difference between the people in the eastern, and those in the western counties of that kingdom. The farmers who cultivate the fertile lands of the Lothians

* The late Rev. Dr. Witherspoon, President of the College of New-Jersey.

have generally a fairer complexion, and a better figure, than those who live in the West, and draw a more coarse and scanty subsistence from a thin and ungrateful soil.*

* It is well known to those who have been accustomed carefully to observe human nature, that coarse and meagre food is commonly unfavorable both to softness and regularity of features, and to the fairness of the complexion. Every change of diet, as I have before remarked, and every variety in the manner of cooking and preparing it for use, is accompanied with some alteration in the system. I have several times witnessed, in my own family, and in those of my friends, the most pleasing changes take place in poor children taken in to service for a term of years, who, in a short period have exchanged their sallow skin, and emaciated appearance, the effect of want and hardship, for a healthful countenance, and clear complexion.

Difference of food, and treatment equally affects the inferior animals. The flesh of many species of game differs both in colour and in flavor according to the nature of the grounds on which they have fed. The flesh of hares, it is remarked by Buffon, that have fed on high lands is much fairer than of those which have fed in vallies, and in damp places. And every keeper of cattle knows how much the firmness and flavor of the meat depends upon the manner of feeding. According to the nature of the food, and the care and treatment bestowed upon them, all domestic animals are infinitely varied in size and shape. The Spaniards inform us that the swine in Cuba grow to nearly double the size of their parent stock in Europe. And according to the testimony of Clavigero, black cattle arrive at a much greater volume of body in the rich forests, and the temperate climate of Paraguay, than the cattle of Spain, from which

That respectable naturalist Forster, who accompanied Capt. Cook in his last voyage, in remarking on the inhabitants of the islands of the Great South Sea, observes, with regard to those of the Society-

they have originally sprung. On the other hand, the cattle, in many parts of the United States, and in Canada, being negligently housed, and fed, during our rigorous winters, and often left, through the rest of the year, to gather a scanty subsistence from the pasturage found in our woods, have greatly degenerated from their parent stocks. They are often seen to be diminutive through defect of nourishment, and deformed through weakness, which exposes them to many accidents, and distorts their limbs, by their inability, especially in the spring season, to bear firmly their own weight. Some such facts occurring to the observation of Europeans who had visited this country, gave occasion to the Abbe Raynal to pronounce the American climate unfavorable to the growth and vigor of animal bodies. That rapid philosopher saw the effects, and had not patience to enquire into the proper cause of them; and with characteristic boldness, a boldness, indeed, which we see too often imitated by European travellers and philosophers, pronounced his decision.

Many animals, by the manner in which they are fed and trained may be brought to change, and apparently to lose, the characteristic properties of their nature. Forster remarks of the dogs of Otaheitee, which are kept, along with their hogs, and poultry, merely for food, and which are nourished chiefly on fruits and roots, the island furnishing little or no game, have become most inactive and lazy animals. Their heads grow larger than is common to the species; and, in their extreme sluggishness, they are hardly ever heard to bark; but utter their languid and uneasy feelings only in a kind of howling.

Isles, that the Towtows, or common class of the people, who are the laborers, and, consequently, much exposed to the influence of the sun in fulfilling their tasks, and who, besides, are nourished with a less succulent and abundant provision of food, than the Arces, or dominant class, are also inferior in their stature, not so handsomely formed in their persons, and considerably darker in their complexion. As is natural, however, from their habit of carrying heavy burdens, they are, in general, more firmly knit in their joints, and stout in their limbs.

If, in England, as is said, there exists not so great a difference in personal appearance between the higher, and the lower classes of society as in other countries of Europe, it is to be ascribed to the liberty enjoyed under the British constitution, and to the more general diffusion of wealth among the people, which lessens, in some measure, the distance between the ranks of their nobles, and their commons. Science, and military talents open the way to the highest distinctions in that nation. The peculiar institutions, genius, and pursuits of the people favor, in an unusual degree, the acquisition of wealth by the lowest orders of citizens. And these not being prohibited by the laws, or customs of the nation from aspiring

to matrimonial connexions with the highest ranks, the different classes are frequently seen to be variously blended together. Often you find in citizens the beautiful figure and complexion of the noblest blood ; and in noble houses the coarse features formed in lower life.

In America we have not the distinction of patrician and plebeian ranks. And the frequency of migration, in a new and extensive country, has not suffered any peculiar habits of life or local manners, deeply to impress a distinctive character on the people of any state. Great equality of condition in the citizens of the United States, similarity of occupations, and nearly the same degree of cultivation, and social improvement pervading the whole, have produced such uniformity of character, that, as yet, they are not strongly marked by such differences in the expression of the countenance, the composition of their features, or generally in their personal properties, as, in other countries, mark the grades between the superior and inferior orders of the people. And yet there are beginning to be formed certain habits of countenance, the result chiefly of manners, which already serve, to a certain degree, to distinguish the natives of some of the states from those of

others.* Hereafter, doubtless, they will advance into more considerable, and characteristic distinctions.

If the white population of America affords us less conspicuous instances, than many other nations, of that variety of countenance, and of personal beauty or defect arising from diversity of rank, and refinement in society, the blacks in the southern states afford one that is highly worthy the attention of philosophers.

The field slaves are, in comparison with the domestics, badly fed, clothed, and lodged. They live together in small collections of huts on the plantations on which they labor, remote from the society and example of their superiors. Confined, in this manner, to associate only with themselves, they retain many customs of their African ancestors. And pressed with labor, and dejected by servitude, and the hu-

* In some of the New England states, for example, we remark, in the body of the people, a certain composed and serious gravity in the expression of the countenance, the result of the sobriety of their domestic education, and of their moral and religious, their industrious and economical habits, which pretty obviously distinguishes them from the natives of most of the states in the southern portion of the Union.

miliating circumstances in which they find themselves, they have little ambition to improve their personal appearance ; and their oppressed condition contributes to continue, in a considerable degree, the deformities of their original climate. The domestic servants, on the other hand, who remain near the persons, and are employed within the families of their masters, are treated with great lenity, their service is light, they are fed and clothed like their superiors ; insensibly, they receive the same ideas of elegance and beauty, and discover a great facility in adopting their manners. This class of slaves, therefore, has advanced far before the others in acquiring the regular and agreeable features, and the expressive countenance, which can be formed only in the midst of civilized society. The former are, generally, ill shaped. They preserve, in a great degree, the African lips, nose, and hair. Their genius is dull, and the expression of their countenance sleepy and stupid. The latter frequently exhibit very straight and well proportioned limbs. Their hair is often extended to three and four inches, and, sometimes, to a greater length. The size and form of the mouth is, in many instances, not unhandsome, and sometimes even beautiful ; the composi-

tion of their features is regular,* their capacity good, and their look animated.

Another example of the power of society in forming the countenance is well known to all those who are acquainted with the savage tribes spread along the frontiers of these states. Among them you fre-

* The features of the negroes in America, especially of those who reside immediately in the families of their masters, have undergone a great change, while the complexion is not yet sensibly altered. The form and expression of the countenance, and composition of the features being principally affected by the state of society, are constantly receiving some modification from that cause, to improve the negro visage. But the rays of the sun which require, in our climate, the greatest care to prevent them from darkening the fairest skin, may be sufficient, in the exposed condition of the slave, to prevent a skin already black from becoming fair. The countenance of the domestic slaves of the third and fourth race, and, in many instances, even of the second, affords a striking example of the influence of the state of society upon the features. And there is reason to believe that, if these people were perfectly free, and were admitted to all the civil privileges of their masters, they would, in a short period, have few of the distinctive traces of their African ancestors remaining, except their complexion. In the state of New-Jersey, where the hardships of slavery are scarcely felt, we see great numbers of negroes who have the nose as much raised from the face, the forehead as well arched, and the teeth as perpendicularly set in their sockets, as the whites. Some negroes I see daily in Princeton and its vicinity who have the nose turned with a handsome aquiline curve.

quently meet with persons who have been taken captive in infancy from Anglo-American families, and grown up in the habits of savage life. These descendents of the fairest Europeans universally contract such a resemblance of the natives, in their countenance, and even in their complexion, as not to be easily distinguished from them; and afford a striking proof that the differences in physiognomy, between the Anglo-American, and the indian depend principally on the *state of society*.*

* The resemblance between these captives and the native savages is so strong as sensibly to strike every observer. Being taken in infancy, before the ideas and habits of civilized society could have made any deep impressions upon them, and spending that tender and forming age in the solitude and rudeness of savage life, they grow up with the same apathy of countenance, the same lugubrious wildness, the same swelling of the features and muscles of the face, the same form and attitude of the limbs, and the same characteristic gait, which is a great elevation of the feet, with the toe somewhat turned in. Exposed without covering, to the constant action of the sun, and of the weather, amidst all the hardships of the savage state, their colour tends to a coppery brown.—This example affords another proof of the greater ease with which a dark colour may be stained on a skin originally fair, than effaced from it. The causes of colour are active in their operation, and, entering into the substance of the skin, soon make a durable impression. White is the original ground on which this operation is received. And the whiteness of the skin is to be preserved only by

The College of New-Jersey, a few years ago, furnished a counterpart to this example. A young indian, about the age of fifteen, who had been brought from his nation five or six years before, was studying the latin and greek languages in the institution.

carefully protecting it from the action of these causes. Protection has merely a *negative* influence : applied, therefore, to a skin already discoloured, it will be slow in producing any change towards white as long as the smallest degree of *positive* agency is suffered from the original causes of discolouration. And, as the skin retains with great constancy impressions once received into its substance, all the dark shades of the complexion will be very long retained. That period of time, therefore, which would be sufficient, in a savage state, to change a fair complexion, to the darkest hue which the climate can impress, would hardly remove one shade from a black colour. Unless, then, the climate be such as to operate very great changes on the internal constitution of the body, and to alter the whole state of the secretions, as well as to defend it from the fervid action of the sun, the negro colour may, by the exposure and hardships of a poor and servile condition, be rendered perpetual.

In what page of the essay has a certain annotator in the edition of Rees' Cyclopædia published by Bradford & Co. in Philadelphia, found it asserted, that the negro complexion has hitherto become sensibly lighter in America? If he has any candor, and possesses, in any degree, the information which ought to distinguish a man who presumes to be an annotator on that work, he will be ashamed of the indiscretion and incorrectness, to give them the softest names they will bear, of some of his remarks under the title, Complexion.

And from carefully observing him during the greater portion of that time I received the most perfect conviction that, if the Anglo-American, and the indian were placed from infancy in the same state of society, in this climate which is common to them both, the principal differences which now subsist between the two races, would, in a great measure, be removed when they should arrive at the period of puberty. This young savage had been too far advanced in the habits of his people, before he was introduced into civil society, to render the experiment compleat: for, all impressions received in the tender and pliant state of the human constitution before the age of seven years, or, at the utmost, of nine or ten, are usually more deep and permanent than those made in any future, and equal period of life. A perceptible difference still existed, at the time of his return to his tribe, between him and his fellow students, in the largeness of the mouth and thickness of the lips, in the elevation of the cheek bone, in the darkness of the complexion, and the contour of the face. These differences had sensibly diminished from the period of his coming to the college: and they appeared to be diminishing the faster in proportion as he lost that vacancy, and lugubrious wild-

ness of countenance peculiar to the savage state, and began to acquire the agreeable expression of civil life. The expression of the eye, and the softening of the features in consequence of new ideas and emotions, which had taken birth since he came into society, removed the chief distinction, except that of the complexion, which had been visible originally between him and his companions. Less difference existed at length between his features and those of his fellow students than we often see between persons of the same nation.* After careful and minute attention, and comparing each feature with the correspondent feature in many of his companions, the difference was very small, and sometimes hardly perceptible; and yet there was an ob-

* The complexion of this young lad was not of so dark a copper as that of his native stock, which could be easily discerned by the stain of blushing in his cheek which is never perceived in those dark coloured tribes. The difference of these effects, however, in them and in him, I ascribe rather to the pains used by those savages to increase the darkness of their natural hue by filthy paints, and other means, than to any influence in the change of his manner of living to remove any of the natural shades of the indian colour. But he added nothing to them, while the savages, by their exposure to the injuries of the weather, and the hardships of their state, with other causes which have been mentioned, are continually increasing them.

vious difference in the whole countenance, created I believe principally by the impression which the complexion, in combination with the other varieties made upon the eye. A few comparisons conducted in this way would result, I am persuaded, in the conviction that the varieties among mankind are much less considerable than, on a slight inspection they appear to be. Each single trait or limb, when examined apart, exhibits no difference from the common properties of the species which may not easily be accounted for. Particular varieties are small. It is the result of the whole, taken in at one impression, which appears difficult to be explained. The combined effect of many minute particulars appears great, and, at the first view, unaccountable. And we have not patience, or skill, it may be, to divide this sum into its least portions, and to perceive, in that state, how easy it is of solution.

Under the head of *the state of society* are comprehended diet, clothing, lodging, manners, government, arts, religion, agricultural improvements, commercial pursuits, habits of thinking, and ideas of all kinds naturally arising out of this state, infinite in number and variety. If each of these causes be admitted to possess, as undoubtedly they do, a

small influence in forming the character of the countenance, the different combinations and results of the whole must necessarily seem great, and, united with the effects of climate, which have been already in some degree explained will afford sufficient principles on which to account for all the varieties that exist among mankind.

Another cause of the varieties arising out of the state of society will be found in the power which men possess over themselves, of producing considerable changes in their figure and appearance according to any standard of beauty which they may have framed. Each nation differs from others as much in its ideas of beauty as in personal appearance. A Laplander prefers the flat, round faces of his dark skinned country women to the fairest beauties of England. Whatever be the standard which any people have formed to themselves, there is a general effort to attain it; and it is every where pursued with more or less ardor and success in proportion to the advantages which men possess in society, and to the estimation in which beauty is held.

To this object tend the infinite pains taken in society to compose the features, and to form the atti-

tudes of children. This is the end of a large portion of the arts of polished life. How many drugs are sold, and how many applications are made for the improvement of beauty? How many artists of different kinds live upon this idea of beauty? If children learn to dance it is chiefly in order to improve and to display their beauty. If they acquire skill in the use of the sword, it is more for the purpose of improving personal beauty than for defence. If this general effort for appearance sometimes leads the decrepid and deformed into absurdity, and produces fantastic characters among the young, it has, however, a great and national effect in forming the countenance, not less than the attitudes and movements of the person.

Of its effect in creating distinctions among nations in which different ideas of personal beauty prevail, and different means are employed to reach them, we may frame some conception from the differences that take place in the same nation, in which similar ideas exist, and similar means are used to form the person, only in various degrees. What a difference between the soft and elegant tints of complexion generally seen in women who move in the higher circles of society, and the coarse ruddiness of the vul-

gar!—between the uncouth features, and unpliant limbs of an unpolished rustic, and the complacency of countenance, the graceful figure, and easy air and movement of persons in cultivated life!—between the shaped and meaning face of a well bred lady, and the soft and plump simplicity of a country girl! —We now easily account for these varieties which have become familiar to the eye, because we see the operation of their causes. But if we should find an entire nation distinguished by a composition of features resembling the one, and another by the contrary, they would have as fair a title to be ranked under different species by certain philosophers as the German, and the Tartar. The general countenance of Europe was, probably, more various several centuries ago than at present. The differences, which arise out of the state of society as their principal cause are, insensibly wearing away in proportion as, in the progress of refinement, the manners and ideas of the European nations are gradually approximating one standard. But the effect of a common standard of beauty, and the means employed by our own countrymen to form their persons after this ideal model are, through the influence of custom, and general example, often little observed. The means

used by other nations, who aim at a different idea, attracting more notice by their novelty, will, therefore, furnish us with more striking examples. Many of the nations beyond the Indus, as well as the Tartars, from whom they have derived their origin,* universally admire small eyes, and large ears. They are at great pains, therefore, to compress their eye-lids at the corners, and stretch their ears by weights appended to them, or by drawing them frequently with the hand, and by cutting their rims, so that they may hang down to their shoulders, which they consider among the highest ornaments of their persons.—For a like reason, they extirpate the hair from their bodies; and, on the face, they leave only a few tufts here and there, which they

* It is probable that the countries of India and China, considering the pleasantness of those inviting climates, were originally inhabited before the regions of Tartary. But, the frequent conquests to which they have since been subject, particularly, the northern parts of India, from Tartarian tribes, have changed the habits, ideas, and persons of the people even more, perhaps, than Europe was changed by the barbarians who overran it in the fifth and sixth centuries. The present population of Northern India is, in effect, Tartarian, only changed to softer features, and better proportioned persons, by a milder climate, and a more improved state of society.

shave.* The Tartars often extract the whole hair of the head, except a long and thick tuft on the crown which they braid and adorn in different forms.—Similar ideas of beauty with regard to the eyes, the ears, and the hair, and similar customs among the aboriginal tribes of the greater portion of North-America are no inconsiderable proofs that this division of the continent has been peopled from the north-eastern regions of Asia.† In Greece, Arabia, and other

* The inhabitants of New Zealand, according to Mr. Forster, although they do not extirpate their beards with tweezers, yet cut their faces, and mark them with such scars, through a preposterous idea of beauty, or manliness, as destroy a great part of the hair.

† The celebrated Dr. Robertson, in his history of America, deceived by the misinformation of hasty, or ignorant observers, has ventured to assert that the natives of America have no hair on the face, or the body; and, like many other philosophers, has set himself to account for a fact which does not exist. They do not differ in this respect from the rest of the human race. Dr. Blumenbach, through a similar error in his information, supposes that their hair is very thin, and in small quantity. On the other hand, the hair of our native Indians, where it is not carefully extirpated by art, is both thick and long. But careless travellers seeing their smooth faces, and bald heads enquired no farther into the cause, but represented the fact as proceeding from a natural debility of constitution and consequent deficiency of this excrescence.

Similarity of customs, of complexion, and countenance be-

parts of the East, large eyes are esteemed beautiful; and in these countries they take extraordinary pains to increase their aperture. In many parts of India they flatten the foreheads of their children in infancy by the application of broad plates of lead. In China they compress the feet of female infants by tight bandages. Among many of the barbarous tribes of

tween the North-American indians, and north-eastern Asiatics, gives strong indications of a common origin. The South-American continent, particularly on the western side, gives no less striking proofs of its having been peopled from the islands of the Great South Sea; as they were peopled originally from the South of Asia. The inhabitants of the southern portion of the Farther India are evidently of Malayan origin. And the same people you trace from that continent through a succession of islands till you approach the western side of America; whence a population of the same, or very similar character appears to have spread from Peru and Chili along the Oronoco, and the different tributary streams of the Maragnon. And here accordingly you meet with various tribes of indians of handsomer form and features than those of North-America, and not unlike, in their appearance, many of the islanders of the South Sea.—Remotely, however, these people have all, probably, the same origin. The Malays are of Tartar race, improved by the mild climate of Southern Asia. These, passing through the equally mild climates of the Pacific ocean appear to have reached America in that direction; while North-America has received her population from Tartary through the rougher climates of Siberia.—Other parts of this continent may have received many accidental emigrants cast upon its shores, in a long succession of ages, from different portions of the Old

Africa, and in the northern regions of Asia they endeavour to assist the influence of the climate by using violence to flatten the nose of every infant in order to mould it after their capricious idea of beauty. The American indians study to render the natural darkness of their complexion deeper by discolouring paints and unguents: and all savages esteem certain kinds of deformity to be perfections; and strive to increase the admiration of their persons by heightening the wildness of their features.

I might proceed, in this manner, through every country on the globe, pointing out the many arts which are practised to reach some favorite idea of the human form. Arts which insensibly, in a long course of time, produce great and striking consequences,* and which, although commonly supposed to

World. The nations from which they parted may have been civilized; but arriving in a new world, without skill to return, or to hold any intercourse with their ancestral seats, and pressed by their immediate wants, and the difficulties of procuring subsistence in an uncultivated wilderness, from any source except from hunting, they would soon lose the knowledge of all other arts, and their posterity would necessarily become savages.

* National ideas of beauty may often have their source in the tendencies of the climate, and the natural influences of so-

affect only the person who uses them, are not without their influence on posterity.—The process of nature in this, is as little known, as in all her other works: but the fact cannot have escaped the observation of those who have paid a careful attention to her operations. Every considerable change of colour, feature, or figure which has grown into a habit of the body, or indicates any important alteration in the general action of the system, is liable to be transmitted, along with other constitutional properties, to offspring. The coarse features of laboring people, created by great hardships, and exposure to the injuries of the weather, we often see imparted. The broad feet of the rustic, spread out by often treading the soil barefooted; and the large hand and arm, formed by constant labor, are often discernible in children. The increase, diminution or change of any other limbs, or features, resulting from arts, or national habits which aim at forming the person after any peculiar ideal model may, in like manner,

ciety; and often in some unaccountable caprice: but, whether derived from the one source, or the other, they will ever have a powerful effect in forming the attitudes, the air, the composition of the features, and the whole aspect of the person.

became hereditary.* The inferior animals afford many examples to prove the existence of this natural law. The figure, the colour, and many other properties of the breed of horses are easily changed, by those who have skill in raising them, according to almost any reigning taste. And they are equally susceptible of deterioration by neglect, or by improper treatment. Out of the same original stock, the Germans, who are settled in Pennsylvania, raise large heavy horses for the draught; the Irish in the same state, by a different mode of treatment, raise such only as are much smaller, and lighter in their form. By competent skill, and the application of proper pains, or, on the other hand, by neglect, or ignorance, the races of all our domestic animals may be almost infinitely varied. Human nature being much more pliant than that of most other animals, and being affected by a much greater number of minute causes, according to the state of society in which men are placed, is susceptible, also of a much greater variety of changes from their operation. And among these

* Is this more difficult to be conceived, or less worthy of credit than that constitutional tendency to certain diseases which, it is now acknowledged by all physicians, may be rendered hereditary?

causes, that which I have mentioned of an imaginary standard of the human form, or of the perfection of social manners, is not the least influential. It is for this reason, perhaps, that in different districts of the United States, in which emigrants from Holland, or Germany, or France, have fixed their residence, in such numbers as, hitherto, to have been able, in a great measure, to preserve their original habits, and manners, and, consequently, their peculiar ideas of personal beauty, grace, or propriety of conduct, they retain also a strong resemblance of the primitive stocks from which they are descended. Whereas those who have not limited their intercourse to the circle of their own countrymen, but have mingled freely with the Anglo-Americans, and have adopted their manners, and habits of thinking, have contracted such similitude to them in their persons, and features that it is now not easy to distinguish from one another, people whose ancestors were discriminated by most obvious national characteristics.

When once any general and standard idea of the beauty of the human person is established in any nation, connexions in marriage will be greatly influenced by it. And these will contribute, in no inconsiderable degree, to perpetuate, or to modify the na-

tional countenance.* If men, in the union of the sexes, were as much under control as some of the inferior animals, their persons might be moulded, in the course of a few generations, to almost any standard, making due allowance for the influence of climate, and the necessary operation of other causes which may be connected with it. But left as these connexions commonly are, to the momentary passions, the tasteless caprice, or the gross interests of individuals, they are more anomalous in their effects. There is, however, a common idea which men insensibly to themselves, and almost without design pursue. And, in general, they pursue it with more or less success in proportion to the rank and taste of the different classes in society, where accident does not, as too often happens, throw beauty into the arms of deformity, or where, in others, they are governed in forming this connexion by interest ever

* Perhaps the power of imagination in pregnant women, which must be always strongly affected by the national character of countenance, may deserve some consideration on this subject. Formerly, the imagination of women was supposed by naturalists to possess a degree of influence in this case which was not justified by the facts relied on to support it. But I am inclined to believe that, at present, opinions have been carried to an extreme on the other hand.

void of taste. The superior ranks, with few exceptions, will generally excel, in the beauty of their form and complexion, not only because they enjoy, in a higher degree, other advantages which have been already pointed out as contributing to this end, but because they have it more in their power to form connexions in marriage among the most beautiful of the sex. The Persian nobility, who are of Tartarian origin, have, in consequence of their removal into a more favorable climate, and their having adopted the manners of a civilized people, acquired juster ideas of the perfection of the human form than they possessed in their primitive seats. Hence, being led to seek the most beautiful women in marriage, they have exchanged the harsh features, and disproportioned figures of their Tartar ancestors, for a stature tall, and elegant, and a form and expression of countenance noble and commanding. The Turkish families of fortune have, in like manner, improved the physical character of their race. And if we may ascribe any truth to the portraits drawn by the Roman historians of the ancestors of the present nations of Europe, we must acknowledge that the refinement of manners, and the improvements in the state of society, which have been introduced in modern times

among their descendents, have contributed also to produce a proportional improvement in their features, and their persons. Nothing can exceed the pictures of barbarism and deformity given us by these writers, of the ancient German and Gothic nations ; whereas no nations, perhaps, have ever surpassed the posterity of these rude people in personal beauty. Such examples tend to shew how much national varieties may depend on the state of taste resulting from the condition of society, and the progress, or decline of civilization and the arts. They shew, likewise, how much the human race might be improved in personal, as it is acknowledged it may be in mental qualities, by proper cultivation.

Of all people the ancient Greeks appear to have best understood how much it is in the power of manners to improve the beauty of the human person, and to increase the vigor of the human constitution. To these ends were directed many of their customs, a large portion of their legislative wisdom, and even of the philosophy of their schools, and the whole system of their athletic exercises. And it has been conjectured, not improbably, that the fine living models exhibited in that country to statuaries and painters became a primary cause of the high

perfection to which the arts of sculpture and painting arrived in Greece. Hitherto among almost all people, not only matrimonial connexions, but all means of improving the human form, have been abandoned, in a great measure, to accident, and the caprice of individuals. Persons of elevated and noble rank have usually had it more in their power than others to select the beauty of nations in marriage ; and thus, while, without system or design, they gratified only their own taste, they have generally distinguished their order as much by elegant proportions of person, by fine features, and a noble expression of countenance, as by their prerogatives in society. And the tales of romance which ascribe superlative beauty to their princesses ; and the fictions of poets, which distinguish their kings and princes by the dignity and manly beauty of their persons, are not to be imputed solely to venality, and a base disposition to flatter the great, but have a real foundation in nature.* And the usual strain

* The justness of these observations will be less perceived in the United States in which so great an equality prevails among the citizens, and the poorest enjoy comparative ease and plenty, than in Europe where so wide a distinction exists between the highest and the lowest grades of society.—They are

of figurative language, which, in order to be just, must be borrowed from nature, strongly supports this remark: a *princely* person, and a *noble* thought, are ordinary figures of speech.

Mental capacity, which is as various as the human physiognomy, is equally susceptible of improvement, or deterioration, from the state of society, and

corroborated, however, by relations formerly referred to in Capt. Cook's observations on the inhabitants of most of the islands which he visited in the South Sea. In remarking on those of the island of Owyhee, he says, "The same superiority which is observable in the *Erees* (or nobles) through all the other islands is found also here. Those whom we saw, are, without exception, perfectly well formed; whereas, the lower sort, besides their general inferiority, are subject to all the variety of make and figure that is seen in the *populace* of other countries." Cook's 3d voyage, book 3d, chap. 6th. These are the remarks of a plain, but most judicious man, who had no theory to support, and was not biased by the opinions of any political party.

Such is the deference paid to beauty, and the sentiment of superiority with which it inspires the beholder, that, to this quality, probably, does the body of princes and nobles collectively taken, in any country, owe great part of their influence over the populace. Riches and magnificence in dress and equipage produce much of their effect in procuring respect, by giving an artificial beauty to the person. How often does history remark that young princes have attached their subjects, and generals their armies by extraordinary beauty of person? And young and beautiful queens have ever been followed and served with uncommon enthusiasm.

the manners and pursuits, which may form the character of any people. The body and mind have such reciprocal influence upon each other, that we often see certain peculiar powers or tendencies of the rational faculty intimately connected with certain corporeal forms. And whenever the moral, not less than the physical causes, under the influence of which any people exist, have produced any visible effect on the form and expression of the countenance, they will also be found proportionally to affect the operations of the mind. The Bæotian countenance was as dull and phlegmatic as the genius of the people: and though Bæotia and Attica were in the vicinity of each other, and inhabited originally by the same race, the distinction between Bæotian and Attic wit is not to be ascribed solely to national prejudice, but had a real foundation in the different characters of the two people. And the proper source of a distinction so striking and important is to be sought rather in the state of society and manners in those republics, than in the Bæotian air to which it has been sarcastically attributed by ancient writers. By the alteration of a few political and civil institutions, Thebes might have become Athens, and Athens Thebes. Different epochs in society unfold differ-

ent powers of the human mind. Poetry, eloquence, and philosophy seldom arrive at their highest perfection together ; not because the mind of man does not at all times possess the same endowments from nature, but because, in the progress of society, new objects arise, and new combinations of ideas are formed which call into exercise different faculties of the soul. If as just and true a picture of the personal as of the mental qualities of men at these different epochs, could be preserved to posterity we should, probably, find as great variety in the one as in the other.* The coarsest features, and the harshest expression of countenance, will commonly be found in the rudest states of society. And the mental capacities of men in that condition will ever be proportionally weaker than those of nations who have made any considerable progress in the arts of civilization.† They become feeble through want

* Of this, the example, which I have before produced of the ancient Germans, and the present nations of Europe, affords a striking proof.

† The exaggerated representations which we sometimes receive of the superior ingenuity of men in savage life, are usually the result of inconsideration. Savages are the subjects of eulogy for the same reason that we admire a monkey,—that is, a

of objects to employ them, and through defect of motives to call forth their exercise. The rudeness of their manners is calculated to quench the first sparks of taste which might be struck out by the grandeur of the objects, and the wild beauty of the scenes which surround them; and even the grossness and filthiness of the food of most savage tribes, and their ignorance of the arts of preparing it so as to render it most nutritious and salutary to the human constitution, tend to blunt their genius. And the Hottentots, the Laplanders, and the people of Tierra del Fuego are the most stupid of mankind for this, among other reasons which have formerly been suggested, that they approach, in these respects, the nearest of any people to the brute creation.*

certain resemblance of the actions of men in civilized society which was not expected from the rudeness of their condition. There are doubtless degrees of genius among savages as well as among civilized nations: but the comparison should be made of savages among themselves, and not of the genius of a savage, with that of a polished, people.

* The descendents of the African race in America are, beyond all doubt, more ingenious, and capable of acquiring any new art, than those who have grown up to maturity in the savagism of Africa. Whether they will ever become as susceptible of improvement as the white races, which has been strenu-

The effects of savage life upon the human countenance are, in many respects, so peculiar as to merit a more minute illustration. Civilization creates some affinity in the countenances of all polished nations. In proportion to their improvement in the arts, and to the progress of science among them there is a characteristic and common *expression*, which results from the similarity of the operations of the mind, and of the subjects about which these operations are employed. But savages in every region are usually distinguished by a countenance so dull and stupid, when not excited into ferocity by hostile and revengeful passions, as to induce many writers to regard them as an inferior grade in the descent from the human to the brute creation. Civilized nations inhabiting chiefly the temperate latitudes, and savages, except in America, only the extremes of heat and cold, these differences in point of climate, combined with those arising out of their state of society, have produced varieties of aspect so great as to appear unaccountable to those who have only superfi-

ously denied by several writers, and, in particular, by Mr. Jefferson in our own country, will be a subject of consideration hereafter.

cially attended to this subject. It is not unworthy of being remarked, however, that the real sum of these varieties, when examined separately, is not so great as the apparent, when taken in at one view. In the latter case, the eye, contemplating at a single glance, not only the variety presented in each feature, but the relations of that feature to every other, and to the whole ; and each new relation producing some modification in the appearance of the countenance, the entire sum of these combinations surprizes us by its magnitude.—For example, even a small change in the eye, will produce a striking alteration in the appearance of the whole countenance ; because it presents to us, not singly the difference which exists in that feature alone, but all the differences arising from the several combinations of that feature with every other feature in the face. In like manner, a change in the complexion presents, not its own difference alone, but a much greater effect, the result of a similar combination. If both the eyes and the complexion be changed in the same person, each variety affecting the whole system of the features, the union of the two results will be productive of a third incomparably greater than either. If, in the same way, we proceed to the lips, the nose, the

checks, and to every single feature in the visage, each produces a multiplied effect, by its separate relations to the whole, and the entire result, like the product of a geometrical series, is so much beyond our first expectation that it confounds common observers, in their attempts to explain the cause, and will sometimes embarrass the most discerning philosophers till they turn their attention, in this manner, to divide, and combine effects.

To treat this subject fully it would be necessary, in the first place, to ascertain some general expression of countenance which every where belongs to savage life ; and then, as there are degrees of more or less rudeness in the state of savagism, as well as of refinement in civilized society, it would be necessary to distinguish the several modifications which each degree makes in the general aspect ; and, in the last place, to consider the varieties, almost innumerable, which arise from combining these general features with the effects of climate and of other causes already mentioned. I shall endeavour merely to draw the general outlines of the human countenance as it is formed by the wildness and solitude which commonly prevails in the savage state. And, in this portrait I shall take my type chiefly from the American savage.

His eye, in his ordinary state of tranquillity, is vacant and unexpressive—the whole composition of his countenance, is fixed and stupid, with little variety of movement in the features—over this unmeaning ground is thrown an air of wildness and melancholy.—The face is somewhat dilated at the sides—its muscles are lax—the mouth and lips large—and the nose, in the same proportion, depressed.

In order to explain this picture, and to point out the causes which concur to create it, let it be observed that the expression of the eye, and of the whole countenance depends, almost entirely upon the objects with which we are surrounded, the impressions which they make upon the mind, and the reflections and emotions they excite. The natural scenery of a country, the occupations, habits, religion, science, government, manners, of a people, all have their separate influences in forming the national character, and expression of face. The justness of this observation is verified by many facts which are daily presented to us in society. How often do we perceive a distinctive character of countenance impressed upon certain religious sects by the peculiar habits and tenets of their profession? Those who practice certain mechanical occupations, and the professors even of the more

liberal arts, are often distinguishable by some peculiarities of aspect, as well as of manners. Every thought that passes through the mind traces its character, in stronger, or weaker lines upon the visage; and total vacuity of thought leaves in it only the expression of stupidity. The infinite variety of ideas and emotions created in civilized society, contribute to give great variety to the lines of the face; at the same time, each class of citizens is liable to be marked by some distinctive expression resulting from their habits and occupations; while each individual will be characterized by some singular, and personal traits according to his genius, education and pursuits. Between savage and civilized society, therefore, there will be all the difference which can arise from thinking, and want of thought. And savages will have all that uniformity among themselves, in the same climate, and country, which naturally arises from vacancy of mind, and the want, especially of all the delicate emotions, which are so varied in society. A vacant eye, and unmeaning countenance, approaching, in some regions, especially under the extremes of heat and cold, almost to a look of idiotism, seem to reduce the savage, in his aspect, many degrees nearer to the brutes, than

the civilized man. The solitude in which he lives renders him dull, and gives him an appearance of melancholy. He seldom speaks, or laughs. Society rarely enlivens his features. When not engaged in hunting or in war, having no object to rouse him, he will often sit for hours in one posture, with his eyes fixed to a single point, and his senses lost in sombre, and unmeaning reverie. These solitary feelings, and melancholy emotions, serve to cast over his visage, which other causes render fixed, and unexpressive, a sad and lugubrious air. The wild scenes of nature around him impress some resemblance of themselves on his features ;—and the passions of war and rage, which are almost the only ones that occupy the mind of a savage, frequently mingle with the whole an aspect of brutal ferocity.*

* The inhabitants of most of the small islands in the great Southern and Pacific oceans form an exception to this general character of the savage countenance. Prevented, by their isolated state, from engaging in perpetual hostilities with neighboring and warlike tribes, like the continental savages, and several of those of the larger islands, they are distinguished by an air of mildness and complacency, which is much increased in consequence of their easy and social manner of living. And this is greatly promoted by the mildness of their climate, and the abundance of simple and nutritious food spontaneously supplied by their soil.

Paucity of ideas, solitude, and melancholy contribute likewise, in no small degree, to form the remaining features of a savage countenance,—a mouth large, and somewhat protruded, a dilatation of the face, and a general laxness and swell of its muscles.

The active exercise of thought, and the intercourse of refined society, induce a tension, and action in the muscles of the face which serve to give it a greater elevation towards the middle. But the vacant mind of the savage leaving these muscles lax and unexerted, they swell into larger dimensions, dilating themselves more towards the sides, than rising towards the center of the face. Hence, perhaps, that plumpness of feature, and roundness of visage, or departure from the oval figure, which we so often find in young persons, and especially young women, who have been bred in the retirement of the country.*

Grief peculiarly affects the lips by distending them, and giving them a swoln appearance. Solitude, gloom or melancholy, in proportion to the de-

* And may not the superior advances made in society, and the arts, in Europe, with the superior vigor and energy of the human character in that quarter of the world, be one reason of the greater elevation of the European above that of the Asiatic countenance?

gree in which they prevail are found to be attended with a like effect. Where they naturally arise out of the state of society, therefore, and when they operate from infancy, and are seldom counteracted by the more gay and vivid emotions created in polished life, the effects will, at length, become considerable. The lips of a savage, will, from these causes, generally be large, and in a less or greater degree, thick and protruded.

The nose affects, and is affected by other features of the face. The whole system of the features is so connected, that, if one be remarkably enlarged, it is commonly accompanied with a proportional diminution of some other. A prominent nose is generally joined with a thin visage. On the other hand, a broad face, thick lips, and elevated cheek bones, are no less commonly accompanied with a certain depression of the feature of the nose. It seems as if the extension of the nerves in one direction restrained their growth in another.* Savages,

* By a small experiment on ourselves, we may render this effect obvious. By a protrusion of the lips, or by drawing down the mouth at the corners, we shall perceive a stricture on the nose, that, in an age when all the features are peculiarly soft and pliant, would sensibly tend to depress it. And, continued through the whole of life, would fix it immovably in that habit.

therefore, have this feature commonly more flat, and sunk than civilized nations. This, however, is not to be regarded as the entire cause of that extreme flatness which prevails on part of the coast of Africa, and in Lapland. Climate, probably, enters there for part of the effect; and is aided by an absurd sense of beauty which prompts the natives to depress it by art.*

The preceeding observations tend to account for some of the most characteristic and distinguishing features which prevail in savage life. To these I might have added another general reason of the peculiar wildness and rudeness which marks them in that state of society. The feelings of savages, when they deviate from their usual apathy at home, are mostly of the uneasy kind; and to them they give an unconstrained expression. Hence will naturally result a habit of the face extremely uncouth; as we see a similar negligence among the vulgar contribute

* Whether the flatness of the African nose be the effect of climate, or of the manner of living, certain it is, that among the posterity of the Africans in America, who are placed in easy and comfortable circumstances, we frequently meet with this feature not only raised like that of the Anglo-American, but beautifully turned.

to heighten that disgusting coarseness which so many other causes concur to create.

I have now briefly examined the effects of climate, of various modes of living, and states of society upon the complexion, and figure of the human species.—And in this examination we have seen that the pliant nature of man is susceptible of many changes from the action of the minutest causes : and the action of these causes habitually repeated through a sufficient period of time, can create, at length, the most conspicuous distinctions among people originally the same. The effect proceeds, increasing from one generation to another, till it arrives at that point where the constitution can yield no farther to the power of the operating cause. Here it assumes a permanent form, which constitutes the character of the climate, or the nation.

It is frequently asked on this subject, why, unless there be an original difference in the species of men, are not the natives of all climates *born*, at least, with the same figure and complexion? To such enquiries it is sufficient to answer, that it is for the same reason, whatever that may be, that other resemblances of parents are communicated to children. Experience demonstrates that figure, stature, complex-

ion, features, diseases, and even powers of the mind may become hereditary. To those who find no difficulty in acknowledging that these properties may be communicated to offspring according to the established laws of nature, the transmission of the climat-ical or national differences among men, of which we have treated, can contain nothing which ought to appear supernatural, or incredible.—If it be enquired, why, then, a sun burnt face, or a wounded limb, is not, by the same laws, if they exist, transmitted to posterity? we may justly reply, that these are only partial accidents which produce no change on the interior structure and temperament of the constitution. It is the *constitution* which is conveyed by birth. And when any change becomes incorporated, into the system, so as, in any considerable degree, to affect its organization, or the state of its secretions, it then becomes communicable to offspring along with all other constitutional properties?

I proceed, now, to consider the exceptions existing in different regions of the globe which seem to stand in opposition to the principles maintained in this essay.

I begin with recalling an observation which I have formerly made, that these exceptions are neither so

numerous, nor so important as they have been represented to be, by inaccurate travellers, and by credulous philosophers. Even Buffon is not altogether free from the charge of credulity, who only doubts concerning the relations of Struys, and other prodigy-mongers, who have filled the histories of their voyages with marvelous tales, the fruit of deliberate falsehood, or of ignorant surprize. Nothing can appear more ridiculous and contemptible than philosophers, like maids and nurses, retailing, with solemn faces, the stories of monsters, and endeavouring to find some cause of their existence in the mysterious operations of nature.*

* Buffon who describes the inhabitants of the Ladrone islands as being, in general, of a stature superior to the men of other countries, thinks it not improbable that giants may have been seen there. And the same author admits the story of the existence of a people in New Holland without teeth.

Lord Monbodo, in his treatise of the origin of languages, &c. whimsically enough, supposes that mankind originally had tails; and that they lost this brutal excrescence only in consequence of the progress of civilization. And he believes that there are some nations who yet retain this mark of affinity with the inferior tribes of animals. Sir Walter Raleigh speaks of a people in Guiana without necks, whose eyes, or rather, whose eye, for it is said that they have only one, is in the upper part of the breast. Other writers have described certain hordes of Tartars in a similar stile. The necks of these Tartars are

In America, perhaps, we receive such tales with more incredulity and contempt than the people of most other nations ; because we see, in such a strong light, the falsehood of similar wonders, said to exist in this continent, which, a few years ago, were reported, and believed, and made the subjects of many philosophical disquisitions, in Europe. We hear every day the absurd remarks and false reasonings of foreigners on almost every object which comes under their observation in this new region. They judge of things, of men, and of manners under the influence of habits and ideas, framed in a different climate, and a different state of society. They pronounce concerning all things according to the accompaniments which similar facts would have in their own country : without examining, like true philosophers, the causes of the differences created in the actions of men, and manners of nations, by diversity of situation. They infer general and erroneous conclusions from single and mistaken facts, viewed through that prejudice which previous habits always form in common minds.*--*Note, see next page.*

naturally extremely short. And the spirit of travelling prodigy has sometimes undertaken to annihilate them.

Since America has become better known, we find no canibals in Florida,—no men in Guiana who have their heads sunk into their breasts,—no martial Amazons. The giants of Patagonia have disappear-

* It requires a more minute and accurate attention, and a greater portion of reflection, and the true spirit of philosophy than is possessed, or exercised by ordinary travellers to judge with just discrimination of men and things in foreign countries. Countries are described from a single spot, manners from a single action, and men from the first man that is seen on a foreign shore, and him, perhaps, only half seen and at a distance. Hence America has been represented by different travellers as the most fertile or the most barren region on the globe. Navigators to Africa who have visited only the shores of the Gambia or the Senegal speak of the spreading forests, and the luxuriant herbage of that arid continent. Surprise occasioned by an uncommon complexion, or composition of features, or a stature a little above or below the ordinary standard, has distorted, and increased or diminished the size of the people of different nations beyond all the proportions of nature. Such judgments are similar to those which a Chinese sailor who had accidentally been thrown on Cape May, or Cape Hatteras, would form of the United States; or would form of Great-Britain or of France who had seen only the suburbs of Dover, or of Calais. Besides the limited sphere of observation of such a traveller, he would naturally see every thing with astonishment, or with disgust, which would exaggerate or distort his representation. He would see each action, that might occur to his observation, by itself, without knowing its connexions; or he would give it in his imagination those connexions which it would have in his own country. A similar error led Capt. Cook, in his first voyage to form an unfavorable opinion of the modesty and chas-

ed. And the same fate should have attended those of the Ladrone islands to whom Buffon, after Gemelli Carreri has been pleased to give an imaginary existence. Tavernier's tales of the smooth and hairless

tity of the women of Otaheité, which his after experience taught him to correct. Many such false judgments are to be found in almost every writer of voyages or travels. The American savages have often been represented by European writers as frigid towards the sex because they seldom avail themselves of the opportunities almost constantly offered by their state of society, to violate the chastity of their females. And, on the other hand, they are sometimes represented as licentious because they are seen to lie promiscuously in the same wigwam, or round the same fire.—Both judgments are false; and result from prepossessions formed in society. Simplicity or rather rudeness of manners, and the hardships of their state, more than constitution, or than climate, create that appearance of indifference, on the one hand, which is esteemed an evidence of frigidity; and give occasion, on the other, to that promiscuous intercourse which is supposed to be united with criminal indulgence. Luxury, restraints, and the manifold arts employed for the purpose, in polished society, contribute to inflame desire, which is allayed by the coarse manners, and the hard fare of savage life, wherein no studied excitements are employed to awaken the passions. And in the midst of this apparently unrestrained freedom, infinitely fewer violations of female honor and safety take place, than are found under the restraints and excitements of our civilized manners. On a like foundation cowardice has been imputed to the aboriginal natives of America, because they prosecute their wars by stratagem,—insensibility because they suffer torture with a patience not to be paralleled in any other country,—and thievishness,

bodies of the Mogul women may be ranked with those which have so long, and so falsely attributed this peculiarity to the natives of America. The same judgment may we form of those histories

because a savage, having hardly any notion of property, except in those things which he has in present occupation, takes, without scruple, what he wants, and sees you do not need.

We see, in innumerable instances, in the narrations of travellers, the act of one man, the figure, or stature of the first vagrant seen upon a distant shore, furnish out the character of a whole nation.

The false and distorted representations of Europeans who visit the United States are sufficient to make us distrust the narrations of all foreigners who pretend to depict the state and manners of new and distant countries. There is hardly a fact which is not perverted by such men as Weld and Ashe, and the inferences which they draw from what they observe are generally false. They travel without a spark of that philosophic spirit which alone entitles a man to remark on foreign, and especially on new countries. Ashe's distress on the Alleghany mountains on account of wild beasts which never disturb an American: his terrors, his disgusts, and his wonderful descriptions of thunder-storms, fire-flies, and snakes are truly laughable; and almost his whole history equally contemptible and false. The same may be said of a great part of the travels through this country which have been published. Volney who claims to stand in the first ranks of philosophy, writes with little more accuracy or discrimination than these ignorant Englishmen. One of the customs, he says, of the citizens of Philadelphia is universally to indulge themselves in bed for two hours in the afternoon, during which time the streets are absolutely deserted. He may have been acquainted with one or

which pretend to describe nations without natural affection,—without any sentiments of religion,—and without moral principle. In a word, the greater part of those extraordinary deviations from the common laws of climate, and of society which formerly obtained credit in Europe, are found, by more accu-

two families in which the ladies gave themselves this indulgence. The rest of the story he must have dreamed. Because he has seen in some houses in Virginia hot buttered rolls served up at breakfast, he says all the Americans eat hot paste perfectly soaked in grease. These are but small samples out of many in which he, and a multitude of others, display their inveterate prejudice, their inexcusable carelessness, or deliberate falsehood.

By such writers, nations have been judged to be without any sentiment of religion, because they have not seen temples, and ceremonies. Others have been pronounced to be without natural affection, because one man has been seen to do an act of seeming barbarity.—But the nation which appears to have departed farthest from the ordinary laws of human nature, is that of the Giagas, a people of Africa, mentioned by Lord Kaims in his laudable attempts to disprove the truth of the Mosaic history. This people, he thinks, must be of a distinct race from the rest of mankind, because, unlike all others, they kill their own children as soon as they are born, and supply their places by youth stolen from the neighbouring tribes. One would think that even his lordship's zeal for a good cause might have suffered him to reflect, that they could not have continued a separate race longer than till the stolen children had grown up to manhood.—An excellent specimen of the easy faith of infidelity !—See *Ld. Kaims' prelim. disc. to sketches of the hist. of man.*

rate observation, to have no existence. If a few marvelous narrations are still retailed by credulous writers, a short time will explode them all, or shew that the facts have been misunderstood; and, that when placed in a proper light, they are susceptible of an easy explanation, on the known, and common principles of nature.

Leaving such pretended facts, and the inferences to which they have given birth, to deserved contempt, I shall now state a few well ascertained phenomena which appear to imply a deviation from the laws of climate as they have been laid down in this essay; and, by the solution of them, endeavour to confirm those laws.

In tracing the same parallels round the globe we do not discern in every region placed at equal distances from the sun the same features and complexion. In the various kingdoms, and districts of India, and along the northern coasts of Africa, nations are mingled together who are distinguished from one another by very conspicuous differences. The torrid zone of Asia is not marked by such a deep colour, nor by such a woolly substance instead of hair, as that of Africa. And the colour of tropical America is, in general, lighter than that of Asia.

The tropical zone of Africa is not uniform. The complexion of the western coast is of a deeper black than that of the eastern. It is deeper on the northern side of the equator, nearly to the tropic, than in the correspondent parallels on the south. The Abyssinians, in the lightness of their complexion, and the length of their hair, form an exception from all the other inhabitants of that zone. And advancing beyond the tropic towards the South, we find the Hottentots who seem to be a race by themselves; less black than the inhabitants of the torrid zone; but in their manners, the most beastly, and in their persons and the faculties of their minds, approaching the nearest to the brute creation of any of the human species.

For the explication of these varieties it is necessary to observe that the same parallel of latitude does not uniformly indicate the same degree of heat, or cold. Vicinity to the sea, the course of winds, the altitude of lands, and even the nature of the soil, create great variety in the temperature of regions posited at the same distance from the equator. The state of society in which any people take possession of a new country, has a powerful effect either in subjecting them to considerable changes in their aspect, from

the operation of the various causes which affect the human system, or in enabling them to preserve their original features in opposition to their influences.

Every migration, however, will produce some change, either more or less conspicuous, in their appearance. And the combined effects of many migrations, such as have been made by the greater part of the tribes of the human race, must have contributed greatly to diversify the aspect of mankind in different countries. A nation, for example, which migrates to a different climate, will, in time, be impressed with the characteristics of its new state. If this nation should, in some centuries afterwards, return to its original seats, it would not perfectly recover its primitive features, and complexion; but would receive the impressions of the first climate on *the ground* of those formed in the second. In a new removal, the combined effect of the two climates would become the ground on which would be impressed the characters of the third. We perceive here a new cause of endless variety in the human countenance.

These principles will serve to explain the causes of many of the differences which exist among the inhabitants of those countries which have been the

subjects of most frequent conquests, or have most frequently received foreign emigrants into their territories ; especially, if religion, manners, policy, or other causes, prevent the old inhabitants from mingling freely, and blending with the new. India, and the northern regions of Africa have been oftener overrun by foreign nations than any other countries on the globe. And many nations who have not attempted conquest, have established colonies among them for the purposes of commerce, invited by the fertility of the soil, or the riches and variety of its productions. We accordingly see in these climates a greater mixture of people than is any where else to be found. These foreign intruders have, all been, in a greater or less degree, civilized. They were able, therefore, to preserve with some success, in their new situations, the resemblance of their original and distinctive properties. The Turks, the Arabs, and the Moors, in the North of Africa,—the Copts, the Mamelukes, the Turks, and the Greeks, in Egypt, will always be distinguishable from one another in their figure, and complexion, as long as their peculiar habits, manners, and religious, or national prejudices are retained, and surround them with those fences which prevent them from

amalgamating, and assuming one national character. And India, and the neighboring islands in the Indian Ocean, will ever be filled with a various race of people, while their delicious climate, and its rich productions continue to invite both conquest and commerce. The climate will, doubtless, create a certain change in the aspect of all foreign nations who remove thither ; but the difference in the degree of this change according to their different habits, and improvements in the social arts ; and the various combinations of the effects of the climate with the original characters of the respective people, will always maintain among them important and conspicuous distinctions.

Along the coasts of the great peninsula of the hither India are scattered the remains of the colonies of many nations who in different ages have held commercial intercourse with those fertile regions. There are found the ruins of ancient and magnificent structures, which demonstrate that this rich, populous but unwarlike country, has, in former periods, suffered the most cruel and desolating ravages by hostile invaders, the remnants of whose armies have, probably, long since been blended with the primitive inhabitants, or formed separate tribes in the midst of

of them ; all which have contributed to multiply the differences of aspect presented to us among that various people. The northern portion of the hither India, and the farther India down to the southern extremity of the peninsula of Malacca, have often been the theatre of Tartar conquests. And in the mass of their population, and particularly in the physiognomy of the *Malays*, we evidently discern the basis of the Tartar countenance now overlaid with the softer feature of the lower Asia : as the countenance of the North American aboriginals is no less evidently the Tartar feature rendered more coarse and harsh by passing through colder climates, and by a more savage state of society.*

* I had not long since a striking proof of the visible resemblance between the figure, countenance, and whole appearance of the Malay, and the American indian. Mr. Van Polanen late minister from the late republic of Holland to the United States, and afterwards holding a high office at the Cape of Good Hope, and in the island of Java, on his return from the East, fixed his residence in Princeton. He brought with him two Malay servants. As they were one day standing in his door, there happened to pass by two or three indians belonging to a small tribe which still holds some lands within the state of New-Jersey. When they approached the door the attention of each party was strongly arrested by the appearance of the other. They contemplated one another with evident marks of

Another variety which seems to form an exception from the principles hitherto laid down, but which, when fairly examined, will be found to confirm them, is seen in the torrid zone of Asia which is not marked by so deep a colour as that of Africa; and the inhabitants have universally long, straight hair instead of wool. The African zone is, almost throughout its whole extent, a field of burning sand, which augments the heat of the sun to a degree that can hardly be conceived of by the inhabitants of the temperate latitudes. The Asiatic zone, on the other hand, consists chiefly of water, which, absorbing the rays of the sun, and filling the atmosphere with a refrigerating vapour, renders the winds that fan its numerous islands, and narrow peninsulas comparatively temperate. The principal masses of its lands lie nearer to the northern tropic, than to the equator. In the summer season the chief winds that blow

surprise. And, by their signs and gestures, discovered their mutual astonishment at seeing such a likeness to themselves.—Every person, indeed, who sees these Malays, and is acquainted with the countenance of our native indians, is forcibly struck with the resemblance.—The chief difference between them is, that the features of the Malays are more soft, the cheek bone not quite so much raised, and the outline of the face somewhat more circular.

reach them after having deposited their greatest heats in those vast oceans which wash their shores on every side. In the winter, on the other hand, they return in their annual course, from continents which the sun has long deserted.*

The next apparent exception from our principles we discover in Africa itself. This continent, like

* The monsoons are found to blow over the whole Asiatic zone, taking their course in the two periods of the year according to the relative position to the sun of the great bodies of land which influence their direction.

In the first edition of this essay, misled by the information of some navigators who had visited many of the larger islands in the Indian seas, I supposed there was a race of negroes inhabiting the interior of the island of Borneo, as well as of some others of those vast insular countries, bearing a considerable resemblance to the negroes of Africa. More accurate information has convinced me that the natives, although black, have more of the Indian than the African feature, and like the former also, their hair is lank and long. The middle regions of those great islands, are very elevated and mountainous; and are, consequently, more temperate than the coasts, which are now almost universally inhabited by descendents of the Malay tribes, who, in some former period, have conquered the level country, and driven the aborigines, who appear to be of indian descent, into the hills, where they have become savage.—That they were not originally savage I conclude from those remains of indian magnificence, and monuments of the Hindoo superstition, which are still discernible in several of the islands, in those parts, from which the aborigines, now the savage inhabitants of the mountainous tracts, have been expelled.

Europe and Asia, contains many varieties created by the same causes, vicinity to the sun, elevation of the land, the nature of the soil, the temperature of winds, the manners of the people and the mixture of nations who, at different periods and in a state more or less civilized, have established themselves within it, either by conquest, or for the purposes of trade. But the two principal varieties of complexion which prevail from the northern tropic, or a little higher, to the Cape of Good-Hope, are the negro, and the Caffre. The Caffre prevails chiefly towards the southern angle of the peninsula, and along the south-eastern side, distinguished, however, by several varieties of shade, occasioned by the causes which have been already suggested. The negro, which is the blackest colour of the human skin, prevails over the greatest portion of the region between the tropics, but becomes of a more jetty hue as we approach the western coast. The cause of the great difference between the eastern and western sides of Africa will be obvious to those who consider the course of the tropical winds, and the extreme heat they must collect from the immense tract of burning sands which they traverse in passing over that continent, in those latitudes where it spreads itself

out to the greatest breadth. The winds under the equator, following the course of the sun, reach the eastern coast after blowing over the Arabian and Indian seas ; where the countries of Aian, Zanguebar and Monomotapa, receive their breezes greatly tempered by that vast expanse of waters. But arriving at Guinea, and the neighbouring regions after having traversed three thousand miles of sand heated by a vertical sun, they glow with an ardor unknown in any other portion of the globe. And these countries, lying in that part of the zone where the continent is widest and consequently hottest, the natives are distinguished by complexion of a deeper jet, and by more deformed features than those on the southern side of the equator, on the coasts of Congo, Angola, and Loango. The intense heat which, in this region, produces such a prodigious change on the human constitution, equally affects the whole race of beasts, and of vegetables. All nature bears the marks of a powerful fire. As soon as the traveller leaves the borders of the few rivers which flow through this tract, where he sees a luxuriant vegetation, the effect of moisture combined with heat, he immediately enters on a parched and naked soil which produces little else than a few scrubby bushes,

and dry and husky plants. And the whole interior, as far as it has been explored, is represented to be a desert of burning sand which often rolls in waves before the winds.* The negro therefore, is not changed in a greater degree, from the Caffre, the Moor, or the European, than the laws of climate, and the influence of manners, as they have been already illustrated, might lead us to expect.

In passing above the river Senegal we enter on a lighter shade of the negro colour ; after which, as we advance towards the North, and before we arrive at the kingdom of Morocco, we find the darkest copper of the Moorish complexion. But all this tract is filled with various tribes of wandering Moors and Arabs, and often with a mixed breed, the offspring of unions formed between these, and the native blacks, among whom the negro complexion predominates ; but their features bear a greater resemblance to those of the Moors, and make some approach to the European face. When we leave the torrid zone, proceeding to the South, we soon ar-

* Buffon speaks of a nation in the center of Africa, the Zuinges, who, the Arabian writers say, are often almost entirely cut off by hot winds that rise out of the surrounding deserts. And in the desert, the ancient Syrtis, the traveller is frequently buried beneath hills of sand raised by hot whirlwinds.

rive among the Hottentots, and approach the Caffre complexion which prevails near the Cape, and along the south-eastern coast. The Hottentots, however, are of a deeper hue than the Moors in the vicinity of the northern tropic; because the Moors, being more civilized, have been better able to defend themselves against the impressions of the climate. But the Hottentots, being the most savage of mankind, suffer its influence in the extreme. Another circumstance contributes to the difference of the effect. The Moors in the vicinity of the tropic receive the influence of the climate on the basis of a European, or Asiatic, feature and complexion; the Hottentot on a basis formed under the equator. They endeavour, likewise, by every mean in their power, to preserve that primitive countenance with which they must, by habit and education, have associated the idea of beauty. For savage, and almost brutal as they are, they have, as well as the most civilized people, their peculiar notions on this subject. They flatten the nose of every child by pressure; and they endeavour to increase the blackness of their complexion by rubbing the skin with the most filthy unguents, and exposing it, without any protection, to the full force of a scorching sun.

Their hair, at the same time, is injured by daubing it, constantly, with the vilest compositions. Yet, against all their efforts, the climate, although it is but a few degrees declined from the torrid zone, visibly prevails. Their hair is thicker and longer than that of the negroes, and their complexion, as they approach the southern point of the peninsula, becomes of the light cast of the Caffre.*

But the phenomenon which principally merits our attention in the African zone is the Abyssinian person and complexion. We find in this Alpine region, and between the ninth and fifteenth degrees from the equator, a race of men resembling the southern Arabians, only of a darker hue, as they lie nearer to the sun, but extremely dissimilar from the negroes on the West coast. Their hair is long and straight, their features tolerably regular, and their complexion a very dark olive, approaching to black. —This deviation from the general law of that zone is explained, according to the principles already

* Many peculiarities have been related of these people with regard to their figure and appearance, by careless voyagers, which are either wholly false, or very greatly exaggerated. If we were to trust such narrations, we should suppose them to be hardly distinguishable from certain classes of the brute creation.

laid down, from their position on the continent, in the vicinity of the great Indian or Arabian ocean, and from the elevated and mountainous face of the country, rising at a medium, at least, two miles above the level of the sea,* and, at this great elevation, covered with clouds, and drenched by almost incessant deluges of rain during one half of the year.†—This altitude of the general face of the country in Abyssinia raises it to a region of the atmosphere which is equivalent, in its temperature, to several degrees of northern latitude. Thus, the partial civilization of the people, the elevation of the face of the country, the temperature of the tropical winds coming from the Arabian ocean, and the canopy of clouds, and the incessant rains which prevail during that season of the year in which the sun is

* Philosophers who have visited that country inform us that the mercury in the barometer does not rise there, on an average, more than twenty inches, which corresponds to the altitude of about two miles above the level of the sea.

† The periodical rains in Abyssinia are now known to be the cause of the overflowing of the Nile. And as the extent of this deluge demonstrates the prodigious quantities of rain which fall in that mountainous region during five or six months in the year, so the length of the river issuing from those mountains, affords a new proof of their great elevation.

vertical, afford an adequate cause of that deviation which we find in this region from the ordinary complexion and form of the human person, presented in other parts of the African zone.*

* After these descriptions of the varieties of feature and complexion which exist under the same latitude, and the reasons, I trust satisfactory to the philosophic reader, assigned for them in the essay, it is surprizing to see these very varieties enumerated, by the Critical Reviewers, as objections to the principles of the essay, as if no explanation of them had been given, or attempted.—“If we examine the globe, say they, we shall find a very considerable diversity in countries where the heat and dryness are nearly the same. Let us take the 20th degree of latitude which is within the Tropic of Cancer, and passes directly through the kingdom of the negroes. It cuts Nubia where the inhabitants are not black.”—I say the inhabitants of Nubia are not so black as those on the western coast between the rivers Gambia and Senégál; but when they say that they are not black, or that Nubia is as hot as the West coast, they have either been badly informed, or are greatly biased by their system.—They proceed, “it cuts Arabia almost in its widest part; but the Arabians are only swarthy, and when transported to more temperate climes, are almost fair.”—On the other hand, the widest part of Arabia lies above the tropic, and there alone we find the swarthy Arab to whom their remarks can apply. And though the southern Arab is not so black as the negro, sufficient reasons, I presume, have been assigned in the essay, for this difference in the comparative temperature of the Arabian peninsula.—“It divides, say they, the Decan where those best defended from the heat are only brown, and the poorer sort are of a darkish hue very different from black.”—How much the prepossession of system has

It now remains only to account for that peculiar variety of complexion and countenance exhibited by the savage natives of America. Their complexion is not so fair as that of Europe or of Middle Asia ; nor so black as that of Africa. And there is a greater uniformity of countenance throughout this whole continent than is found in any other region of the globe of equal extent.

That the natives of America are not fair results as a natural consequence from the principles already established in this essay. Savages will always be discoloured, even in temperate climates, by different shades of the tawny complexion. And if we do not

diluted their colours !—But surely after this, they need not complain, as they have done, of the inaccuracy of terms by which the grades of complexion are distinguished in the essay. —They have, at least, implicitly acknowledged the great effect upon the human skin which may result from the state of society in which men are placed, combined with the influence of climate. But, if these gentlemen would patiently advert to the comparative mildness of the Indian zone, to the great mixture of northern nations, which time has brought together, especially in upper India, and the vicinity of the twentieth degree of latitude to the temperate climates, they would find little occasion for their remarks.—They observe further, “that this parallel passes over the kingdom of Mexico and the southwestern end of Cuba.”—The insinuation implied rather than expressed in this observation will be answered immediately when I come to speak of the climate of tropical America.

find any tribes resembling some of the nations of Africa in the deep jet of their colour, it proceeds from the mild temperature of the tropical zone in America. Mexico, which forms the northern portion of that zone, consists chiefly of a narrow neck of land dividing the Atlantic from the Pacific ocean, and every where rising into high hills. As you proceed to the South immediately below the isthmus of Darien, Terra Firma, on one side, presents an Alpine bed of lofty mountains. On the other side runs the chain of the Andes, with its elevated summits covered with snow. On the West of these lies the narrow empire of Peru, constantly refreshed by temperate winds from the Pacific ocean, and overshadowed by a canopy of dense vapour which prevents the rays of the sun penetrating with great force to the earth. On the East is spread out the immense country of Amazonia flooded during a great portion of the year by the waters of the Maragnon, and its tributary rivers, and covered with thick and dark forests, beneath which grows a luxuriant tissue of vines and weeds which can hardly be penetrated by the traveller, and utterly excludes the sun. Here are no arid deserts of sand; and from such a rich vegetable growth arises a refrigerating perspiration

which, together with the vapour of so many streams, united with the effluvia of the moist and shaded earth that cannot be wholly absorbed even by the thick vegetation on its surface, produces an uncommon coolness in the atmosphere.* This moderate temperature is increased by the East wind which perpetually follows the course of the sun through the equatorial regions. Having deposited in the Atlantic ocean the excessive heats acquired in its passage across the continent of Africa it regains a temperature comparatively mild before it arrives at the American coast ; whence it continues its course over thick forests and flooded lands, till it meets the cold ranges of the Andes. The lofty and spreading forests of tropical America are at once a proof of the temperature of the atmosphere, and contribute to

* Dr. Robertson quotes two eminent naturalists, Piso and Margrave, who had resided long in Brazil, who represent the climate as being *very temperate and mild compared with that of Africa*. *The air, they say, is not only cool, but chilly through the night, insomuch that the natives kindle fires every evening in their huts*. This is confirmed by different writers concerning various countries within that vast region, viz. Neuhoff concerning Brazil ; Gumilla concerning the countries on the Orinoco ; Acugna concerning those along the Amazon ; and Biet in his voyage de la France Equinox. gives a similar account of Cayenne.—Hist. Amer. Note 5th, vol. 2d.

promote it. Extreme heat parches the unprotected soil of Africa, and converts it into an arid sand. The luxuriant vegetation which prevails in the tropical latitudes of America is the fruit of a moist earth, and a temperate sky. And the natives, inhabiting perpetual shade, and respiring in the refrigerating and grateful effluvia of a fresh and rich growth of vegetables, enjoy a moderate climate in the midst of the torrid zone.

These facts tend to shew that, as far as heat is concerned in the effect, the complexion of the American, must be much lighter than that of the African, or even of the Asiatic zone : and the mildness of temperature which prevails over such a vast extent of country contributes, in no inconsiderable degree, to that uniformity of countenance which is thought to be peculiar to the aboriginal tribes of America, but which is the result chiefly of that uniform state of society in which they almost all exist. Except the Peruvians, and Mexicans, and a few smaller tribes in the southern continent, the whole are sunk nearly to the same condition of savagism. Destitute of that variety of ideas and emotions which give variety of expression to the human countenance, the same vacancy of aspect is spread over

all; and the same set and composition, nearly, is given to the features. When to this common resemblance, created by their state of society, and similar habits of living, we add that the general complexion of tropical America is but a few shades darker than that which is the natural result of savage life even in temperate climates, we probably perceive the true causes of the apparent *uniformity of the American countenance*. There is, however, a visible increase of the dark hue as we proceed towards the circle of the equator, which is also the widest part of the southern continent. And here, there are many tribes of the natives stained with as deep a colour as the inhabitants of the southern extremity of the Indian peninsula. The Mexicans and Peruvians, and a few small nations in their vicinity, among whom we discern the first imperfect elements of civilized life, although preserving the general outline of the American countenance, have a softness thrown over it which distinguishes it from that of the northern savages. Their features are more regular, and handsomely turned; and they appear to bear a nearer resemblance to the inhabitants of many of the islands of the great South Sea, from whom, it is probable, they derive their origin. The Malays,

who were originally Tartars, having, at some remote period, taken possession of the farther India, afterwards spread themselves over the greater part of the islands of that vast ocean, conquering, and driving to the mountains in the interior of some, and in others, reducing to slavery, or extirpating, the primitive inhabitants. Not being addicted to commerce, these insular colonies, have not long maintained any intercourse with the parent country, and have therefore retained the knowledge of only a few of the arts with which their ancestors were acquainted.* But with these few they have probably advanced from island to island till, at length, they reached the western shore of the American conti-

* That either the ancestors of the present inhabitants of many of those islands, or the nations whom they have extirpated, possessed the knowledge of arts which are now lost from among them, is evident from the monuments of architecture and sculpture which still remain. Several monuments of ancient art are found even in the small island of Easter which is so deeply embosomed in the ocean, and approaches so near to the American continent, which are beyond the skill or power of its present inhabitants to effect. The resemblance of the works which are found in Java, and some neighboring islands, to those of Elephanta and Salsette, demonstrate the relation of those ancient people to the nations of India. While the religious worship of the Peruvians bears a strong testimony to their Asiatic origin.

ment. Here they seem to have laid the foundations of those empires which the Europeans, on their arrival in America, found as yet only in the first stage of civilized society. Their earliest establishments were evidently made in Peru. Afterwards Mexico appears to have been founded about three centuries before the discovery. From this empire a few tribes probably found their way farther up into the continent, to the North of the Mexican gulph.* But here they were met by ruder and fiercer tribes whose ancestors had come from Asia by a different route. But whether leaving Asia, and entering America by the North, or by the South, the remote ancestry of both appear to have originated nearly from the same regions. And in all the American indians we discover visible traits of the Tartar countenance.

The last apparent exception to the general principles of the essay which I think it necessary to notice is found in the islands of the Indian and Pacific oceans. In these seas people have been discovered

* Such were probably the Natchez, several of whose customs resembled those of the Peruvians. And generally, the tribes in that vicinity between the Mississippi and Mexico were of a milder character than the northern indians.

in islands existing in the vicinity of one another, and often in the same island, of various complexions. The chief of them I shall present to the reader as they have been described by some of the most accurate observers, and eminent naturalists who accompanied the celebrated Captain Cook. The inhabitants of Otaheitee are divided into two classes.—The *Tow-tows*, or servile class, who are occupied in such labors as the simple condition of the people requires: and the *Arees*, who may be regarded as the proprietors of the soil, and who are exempted from every laborious occupation; spending their lives amidst such pleasures and amusements as the climate permits, and their uncultivated state of society affords. The former, besides the burdensome tasks which they are obliged daily to perform, are reduced to a much more scanty provision of food than their masters, and are exposed, without clothing, to the full impression of the sun. These, though not stained with the deep jet of the torrid regions of Africa, are of a much blacker hue, than the superior class of the *Arees*, who are exposed to no hardships, are always well clothed,* and enjoy not only a suffi-

* In a handsome and light cloth the peculiar fabric of those islands.

ciency, but abundance of simple, indeed, but nutritious food.* The Arees are represented to be, in general, a people of good stature, fine figure, pleasing features, and proportions of person, and of a complexion so light, in the women especially, as to render the stain of blushing easily perceptible.†

Passing on to the north-east, about the region of the tropic, we come to the Marquesas isles, in which the women, who are clothed like the Otaheiteans, exhibit the same general appearance; but the men, who universally go naked, are of a darker hue. Their food is neither so nutritious, nor so abundant as that of the inhabitants of Otaheitee: and a less fertile soil has imposed upon them a general necessity of labor. Hence, besides the greater discolouration of their skin, they are seldom so corpulent

* Bread fruit, apples, cocoa-nuts, yams, eddoes, and other excellent fruits and roots which grow in great profusion almost without culture in their mild climate, and fertile soil. Add to these, poultry, and hogs of a very sweet and succulent flesh, and dogs which are there kept only for the purpose of food.

† The principal defects of their countenance are said to be a little bluntness of the nose, a small protuberance of the lips, dilatation of the middle of the face, and a gentle swell or plumpness of its features in general; which, however, in this simple people, appears agreeable.

as the Otaheiteans, though commonly of a more muscular form. And these effects are supposed, by the naturalists whom I have before mentioned, to be increased by the position of their habitations, which are never placed like those of the Otaheiteans, on beautiful and fertile plains, but generally on the slopes, and often on the summits of very high hills ; so that whenever they move abroad, they are necessarily in a state of strenuous exertion.

From the inhabitants of the Marquesas, the people of the Friendly Isles, who, from choice, or from necessity, are addicted to the same habits of industry and exertion, do not differ much either in complexion or in figure.

But far to the East, and nearly at an equal distance from the Society Isles, and the American continent, we discover the small, and thinly inhabited island of Easter. The natives of this remote and solitary spot are subjected to greater hardships than those of the islands which have just been mentioned ; and living in a still ruder state of society, are represented as being more slender in their persons, and more dark and coppery in their complexion, not unlike the Peruvians of the neighboring continent. Several relics of ancient art, however, bearing a

striking resemblance to the remaining monuments of ancient indian architecture and superstition, demonstrate that this island has once been possessed by a people who had made greater advances in the progress towards civilization than the present inhabitants.

Within the same latitudes, and not remote from the Society, and Friendly Isles lies the group of the New Hebrides. Of these several are inhabited by a people more savage than the former. Their inhabitants, especially those of Mallicollo, of New Caledonia and Tanna, are distinguished by a sooty complexion. Their hair, though not so short, and closely napped as that of the Africans, is frizzled and woolly. And in their whole appearance, they bear some analogy to the miserable inhabitants of the neighboring region of New Holland; except that their slender persons are better turned, and they possess much greater vivacity of disposition. The natives of Papua, and New Guinea exhibit nearly the same colour of the skin, and the same form of the hair. But in all the large islands near the Indian continent there are very distinctly marked two races of men;—one inhabiting the mountainous countries every where occupying the interior of those islands; the other possessing the low and level

lands near the sea coast. The former exhibit many points of resemblance with the Hindoo tribes: the latter are evidently of Malayan original.

Thus I have presented to the reader the three principal varieties of men which are found in the Indian and Pacific oceans,—the blacks of New Holland, New Guinea, the New Hebrides, and Papua;—a people of dark olive colour, inhabiting the mountainous interior of the large islands;—and those who possess the low and level countries in the same islands, who also occupy the greater part of the groupes of smaller islands scattered through those seas, all of whom exhibit different shades of the tawny complexion.—Of these, the first are probably descendents of that original stock who were formed by the climate, while they were yet in their most rude and savage condition. The second have all the appearance of being the remnants of Hindoo colonies who had established themselves in those isles in some remote period when the Indian empire was in a much more flourishing condition than at present. But expelled at length from the sea coast by Malayan conquerors, who form the third race, they have retired to the mountains, and there become savage. These conquerors, in a distant

age, issuing from the North of Asia, having subdued the farther India, at length spread themselves over almost all the islands in those extensive seas.*

If it be asked, why have not these several varieties been long since melted down into one uniform countenance by the operation of the climate which is supposed to possess such a powerful influence over the human constitution?—It is well understood by naturalists that various races capable of propagating their kind, may be formed out of the same original stock of animals, or of plants, and that, by proper culture and care, they may forever be preserved

* This is an inference justified not only by the general resemblance of all these people to one another, but by the evident vestiges of the same language, which those, who are best acquainted with them, discern in the vocabularies of all those islands.

Traces of this language are perceived says Reland, [*dissertationes miscellanæ*, vol. iii.] not only in the tongues spoken in these numerous isles, but in those used by the continental nations inhabiting the middle of Asia, as the Persic, the Malabaric, and even the Braminic. And the common origin of so many different dialects is most obvious in their vocabularies of names which express the most common, familiar, and useful objects, and such as must have been known, and even necessary, equally to them, and to their ancestors, in every stage of their improvement.

distinct. In forming the different races of men* other causes are combined not less powerful than climate. Manners, education, habits of living, and all those causes comprehended under the general

* Blumenbach attempts to throw the different races of men into five principal divisions, viz. the *Caucasian* or handsomest race, the primary seat of which was about the Euxine and Caspian seas, and the countries somewhat to the South, from whom came the Europeans. Second, the *Mongou*, or people inhabiting the North-East of Asia, with their descendents to the East, of that continent. Third, the *African*. Fourth, the *American*. And fifth the *Malayan*, occupying the South-East of Asia, and a great part of the isles in the Indian and great South seas.

Leibnitz, ranks them under four orders:—the Laponian, the Ethiopic; the eastern Mongou, comprehending the people of Asia; and the western Mongou, embracing those of Europe.

Linnaeus likewise divides them into four:—the red American; the white European; the dark coloured Asiatic; and the black Ethiopian.

Buffon arranges them in six;—the Laponian in the North of Europe and Asia; the Tartar in the North-East of Asia; the southern Asiatic; the European; the Ethiopian, and the American.

Various other divisions have been made by different writers; as, the Abbè de la Croix; Kant; Dr. John Hunter; Zimmerman, and others.—The conclusion to be drawn from all this variety of opinions is, perhaps, that it is impossible to draw the line precisely between the various races of men, or even to enumerate them with certainty; and that it is in itself a useless labor to attempt it.

head of *the state of society*, have a powerful operation in preserving, and augmenting, or in guarding against the impressions of climate, and in modifying the whole appearance of the human person and countenance. And after the characters of a race have once been completely formed, and thoroughly incorporated into the system, they may, by the influence of the same moral causes, and the application of the same arts which contributed to create them, be, in their principal features, perpetuated in the most various climates. Nations, sprung from the same original stock, may be traced, by many points of resemblance, through different climates ; and different races may long preserve their peculiar, and most discriminating properties in the same climate ; especially if, like the inhabitants of these islands, their customs, their prejudices, or antipathies prevent them from amalgamating, and confounding their stocks.—Hence the resemblances and differences which exist among the various people of the numerous islands of the great South Sea, the Indian, and Pacific oceans. And hence that mixture of races extended along the Senegal in Africa, and scattered through the intermediate space between that river and the Gambia, where we meet with negroes,

Moors, and Arabs, and often with a race mixed and compounded of all the others.*

Having now concluded the investigation which I proposed into the causes of the principal varieties in complexion and figure which distinguish the different nations of men from one another, it gives me pleasure to observe on this, as on many other sub-

* This region seems to form the general boundary between the Moorish and Arab, or dusky and yellow population in the northern portion of Africa, and the negro, or black population in the center. It is a broad belt which borders the African zone from the twelfth or thirteenth degree of latitude to the tropic, and extending from the Atlantic ocean, to the mountains of Abyssinia.—Mr. Park appears to regard the Foulah tribes, who are lighter in their complexion than other negroes, with softer and longer hair, as related by mixture to the Arabs, whom they resemble in their attachment to a pastoral life. Those wandering and predatory tribes which are called by the general denomination of Moors, who surround and penetrate the great desert, and have dispersed themselves in various hordes as far as the Niger, are, not improbably, the remains of several civilized nations of antiquity, Carthaginians, Phœnicians, Romans who at different periods possessed the North of Africa, blended with the Numidians and Mauritanians, and reduced almost to savagism by being scattered through the inhospitable deserts of that arid and ungenial country.

This is the circle which the Critical Reviewers have dexterously selected for examples of diversity of complexion within the tropical latitudes in order to impugn the principles of this essay while they have not had the candor to notice, as philosophers, the solution which is given of this phenomenon.

jects which have been attempted to be formed into objections against the sacred history, that the most extensive and accurate researches into the actual state, and the powers of nature, have ever served, more and more to confirm the facts vouched to us by the authority of holy writ. A just philosophy will always be found coincident with the true theology. But I must repeat here an observation which I made in the beginning of this essay, and which I trust I am now entitled to make with more confidence, that the denial of the unity of the human species tends to impair, if not entirely to destroy, the foundations of duty and morals, and, in a word, of the whole science of human nature. No general principles of conduct, or religion, or even of civil policy, could be derived from natures originally and essentially different from one another, and, afterwards, in the perpetual changes of the world, infinitely mixed and compounded. The principles and rules which a philosopher might derive from the study of his own nature, could not be applied with certainty to regulate the conduct of other men, and other nations, who might be of totally different species; or sprung from a very dissimilar composition of species. The terms which one man would frame

to express the ideas and emotions of his own mind must convey to another a meaning as different as the organization of their respective natures. But when the whole human race is known to compose only one species, this confusion and uncertainty is removed, and the science of human nature, in all its relations, becomes susceptible of system. The principles of morals rest on sure and immutable foundations. —Its unity I have endeavoured to confirm by explaining the causes of its variety. Of these, the first I have shewn to be *climate*, by which is meant, not so much the latitude of a country from the equator, as the degree of heat or cold, which often depends on a great variety of other circumstances. The next is *the state of society*, which may augment or correct the influence of climate, and is itself a separate and independent cause of many conspicuous distinctions among mankind. These causes may be infinitely varied in degree; and their effects may likewise be diversified by various combinations. And, in the continual migrations of mankind, these effects may be still further modified, by changes which have antecedently taken place in a prior climate, and a prior state of society. Even where all external circumstances seem to be the same, there may be

causes of difference depending on many natural influences with which philosophy is not yet acquainted ; as there are varieties among the children of the same family. Frequently we see, in the same country individuals resembling every nation on the globe. Such varieties prove, at least, that the human constitution is susceptible of all the modifications which exist among mankind, without having recourse, in order to account for them, to the unnecessary, and therefore unphilosophical hypothesis of there having existed from the beginning, different original species of men. It is not more astonishing in itself, or out of the order of nature, that nations sprung from the same stock, than that individuals should differ. In the one case we are assured of the fact from observation ; in the other, we have reason to conclude, independently on the sacred authority of revelation, that from one pair have descended all the families of the earth.

REMARKS

ON

CERTAIN STRICTURES MADE ON THE FIRST
EDITION OF THIS ESSAY,

BY MR. CHARLES WHITE,

In a series of Discourses delivered to the Literary and
Philosophical Society of Manchester in England.

*Published in London, in quarto,
in the year 1799.*

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REMARKS, &c.

MR. Charles White having, in a series of discourses delivered to the literary and philosophical society of Manchester in England, made several strictures on the first edition of this essay, and appealed to certain anatomical facts which he supposes to stand in opposition to its principles, I have conceived it to be a duty which I owe to myself, and a respect due to the ingenuity of Mr. White, to point out some mistakes in his facts, and some errors in the conclusions which he has drawn from them. The facts subjected to his own inspection were derived principally from an examination of a single African skeleton, though afterwards confirmed by other skeletons, and by some living subjects. And I readily admit that the picture which he has presented to us exhibits with sufficient accuracy a general image of that miserable and degraded class of Africans who are introduced as slaves into the islands of the West-Indies, or the United States of America, most

of whom had before been slaves, or were taken from the poorest and most abject class of the population in their own country.* If their characteristic physiognomy may, in part, be ascribed to the influence of the climate, much certainly ought to be imputed to their miserable habits of living. For it is evident to every eye capable of comparing an American, with an African negro, that the change of climate, and of their manner of subsistence, has already produced in the posterity of the Africans, all the alteration in their appearance which, in so short a period of time,

* We find from Mr. Park's examination of the region lying between the Senegal, the Niger, and the Gambia, that more than three fourths of the African population consist of the servile class, in a country in which the freest appear to be in a condition sufficiently wretched. From this servile class almost all the slaves imported into America are taken. Now and then, however, we find one who has been decoyed, or borne off by force from among those who belong to the superior grades of their society. When this is the case, he is commonly distinguished by a more erect person, and more open countenance than his companions, with less of what is called the African peculiarity of feature. A proof that the most disgusting qualities of the African countenance result from the abject state of poverty and subjection in which their slaves, and the lowest classes of their population exist. This conclusion is confirmed by the amelioration which their features are undergoing in the United States, especially in the families of wealthy and humane masters.

could justly be expected, allowing to the principles maintained in the preceeding essay their full and necessary operation. I do not hesitate to apply this remark to the American slaves, in general ; but it is applicable especially to the domestic slaves of opulent families in the southern states, and the free blacks who are found in considerable numbers in the northern portion of the Union. The most oppressed and destitute of these slaves, with very few exceptions, are better fed, clothed, and lodged, than their ancestors were in Africa.* But there is a visi-

* Very exaggerated descriptions are often given of the severities practised, and the deprivations imposed, on the slaves in the southern states. I have visited all those states, and resided several years in Virginia without ever having been the owner of a slave in any of them, and it gives me pleasure to be able to say that, except in a very few instances, I have generally witnessed a humane treatment exercised towards that dependent and humiliated race of men. If it be asked, why, then, are they not emancipated? The answer to this question involves political considerations which it does not belong to me at present to discuss. But I believe the public safety necessarily prevents a speedy accomplishment of an event so desirable to humanity.

But in justice to the southern planters I must add that their treatment of their slaves is not to be estimated by what too frequently takes place in the British West-Indian colonies. Several circumstances unnecessary, or improper to be mentioned here, contribute to the severity of the slavery that exists in those islands.

ble difference, as I have formerly remarked, in the appearance, as there is in the treatment of those domestics who are nourished in the families, and pursue their light occupation almost constantly in the presence of their mistresses or masters, and the slaves who are sent to labor in the fields under the inspection of an overseer. The latter are obliged to be subjected to a severer discipline, and to subsist on a coarser and more scanty fare, and they are more negligently attended during the period of infancy. Generally, however, even these enjoy considerable privileges which the prudent and industrious among them improve to the amelioration of their condition, and to add, in no small degree, to the comfort of their subsistence. Hence the American negro is visibly losing the most uncouth peculiarities of the African person, and physiognomy.

Having made these preliminary observations I proceed to enter into a more particular consideration of those distinguishing properties which, according to our author, discriminate the negro of Africa from the fair native of Europe.*

* The following facts and reasonings may be applied also to estimate at their just value those detached observations quoted in Mr. White's appendix from professor Soemmering's essay on the comparative anatomy of the negro and European.

“The foot of the negro, says he, is much longer, broader, and flatter than that of the European. The *os calcis*, instead of forming an arch with the *tarsal bones*, makes with them nearly a straight horizontal line.”—Taking the second of these observations out of the technical language in which it is expressed, it is simply, that the heel extends much farther back in the black than in the white man.—This is surely a very equivocal criterion of a distinct species. We see in our own climate, the laboring poor who are occupied in the cultivation of the ground, and who generally pass the summer season without shoes, or with very loose ones, have their feet much longer and broader than persons in the more polished circles of society, who have them always confined by tight shoes. When the foot is left entirely unconfined to bear the constant pressure of the weight of the body, it will necessarily be much dilated and extended in every direction. On the contrary, many of those slaves who are raised in genteel families, and kept near the persons of their masters and mistresses, and dressed like their superiors, exhibit comparatively little difference in this limb from the Anglo-Americans. I have now before me a young black woman, the property of a female rela-

tion who has a heel as well formed as that of the fairest lady.

The author proceeds to say,—“ The skull is narrower, both before and behind, in the negro ; and the head is so placed upon the neck that the back part of it makes a much more obtuse angle with the spine, than in the white European.” He adds,—“ The depth of the lower jaw, between the teeth and the chin is less, that of the upper, between the nose and the teeth greater ; the channel of sound in the ear placed farther back ; the foreteeth are larger, and not placed so perpendicularly in their sockets, projecting more at their points. The bones of the nose are less projected ; the chin, instead of being projected, recedes ; the *meatus auditorius* is wider, and the bony sockets which contain the eyes more capacious ; the bones of the leg and thigh more gibbous, and the fore arm longer than in the white man.”—Such is the picture which Mr. White has drawn of the negro skeleton : and taking for the original the greater part of those miserable people who are brought as slaves from the continent of Africa, the portrait is sufficiently accurate. But is it more surprizing, or difficult to be accounted for, that the form of the skeleton, than that the muscles,

the complexion or the expression of the countenance, should be affected, as I have already shewn that they may, by the climate, the habits of life, and the state of society in which any people exist. But I repeat, and I repeat it with the most perfect confidence, because the fact is open to the observation of every American, that, in the United States, the physiognomy, and the whole figure and personal appearance of the African race is undergoing a favorable change.* Among the males you frequently

* I have before assigned reasons why a change in the complexion is less speedily to be expected in the blacks or any discoloured people, than in their features, and persons. Some annotator on the edition of Rees' Cyclopædia now publishing in Philadelphia by Bradford, and others, has been pleased to assert that I have maintained that the black complexion of the American negroes is growing sensibly lighter. Whatever may be the fact, I have, certainly, made no such assertion; but on the other hand, have assigned reasons why no very sensible effect of this kind should yet be expected. But, that time will efface the black complexion in them I think very probable, as it has done in the colony which, according to the testimony of Herodotus, was anciently transferred from Egypt to Colchis.—It discovers no small impropriety, but certainly not much philosophy, to pretend, in this manner, to remark on a work which either the writer has not read, or has read but very superficially. But one does not know which most to wonder at, his petulance, or his ignorance in the following remark. "The question respecting the mutability of the com-

meet with men of straight, active, and vigorous persons, who present to you foreheads as open, full, and finely arched as the whites. And among the females it is not uncommon to meet with good features, and a pleasing expression of countenance. And if we consider beauty of form in the mixed race as of any account in this question, there are not perhaps in the world persons of finer figure and proportions than are found among the mulattos of St. Domingo or Jamaica.—The nose of the American negro, though not yet so much raised as that of the whites, is, in general, far from being so much depressed as that of the natives of Africa. The teeth of that race are almost universally beautiful; and, in

plexion of man, is a philosophical one. And it is remarkable that the doctrine of entire mutability on this subject," a strange expression for a *critical* annotator, "is, and always has been advocated, by men much more distinguished for their piety, and christian zeal, than for their knowledge of nature."—What then! does a little smattering of Chemistry and Medicine, create a philosopher? Were Bacon and Buffon, and Blumenbach, and Camper, and a thousand others among the most eminent naturalists, *more distinguished for their christian zeal, than for their knowledge of nature?* Or has the young man, in *his* zeal to throw out a malignant reflection against religion, forgotten these *real* philosophers?—If he has a spark remaining of that ingenuousness which becomes a philosopher, or a scholar, he will be ashamed of this annotation.

the cases which I have already indicated, and which should be preserved in mind in all these remarks, where their servitude has been mild, through several races, they are found not to project more at the points than those of the handsomest Europeans. In proportion as the feature of the nose rises, the lips are becoming less protuberant. And the distance from the bottom of the nose to the aperture of the lips, and thence to the middle of the chin, differs little, in many of them, from the proportions that are seen among the whites.* How far the gibbousness of the legs and thighs, which is so common to the natives of Africa, is to be ascribed to climate, I will not venture to pronounce : but I am inclined rather to attribute it to neglect of their children during the period of infancy.† The cli-

* See the proportions taken from young blacks, p. 261—263.

† From the same cause many crooked and deformed persons are seen in most of the great manufacturing towns in England ; and indeed wherever the necessities of the poor press upon them so constantly that they have not leisure to pay those attentions to their children which are requisite to improve the beauty of their form, or even to preserve them from many hurtful accidents. From a directly opposite cause, the facility with which the poor procure subsistence in the United States, and the leisure which they consequently enjoy for all these de-

mate of Africa requires less attention to them for their preservation and safety, than the more rigorous climates of the North. And a savage and barbarous people not feeling the same solicitude for personal beauty which is felt in polished society, they perceive few motives, derived from this source, to depart from the natural indolence of savagism in the care of their children. These children, left during a great portion of the day, on the ground at the doors of their huts, to their own struggles and efforts, at that period of life when they are first beginning to move from place to place, will frequently distort their limbs by accidents, or by wrong and violent positions. But without taking these accidental ills into the account, the common way of moving at that age being on their hands and feet, much stress is necessarily laid on the legs and thighs. And this not being in a perpendicular direction, as on the arms, but in an oblique and inclining position, will naturally tend, at an age in which the bones are in a soft, and almost cartilaginous state, to give a

mestic, and parental cares, a deformed child is rarely seen in our country.—Indolence produces in Africa the same effect, which the pressure of too much labor does in many parts of Europe.—See this subject more particularly treated in the essay, p. 139—144.

gibbous form to these limbs. I am the more inclined to ascribe the effect to this cause for a reason that will be very obvious to a planter in the southern states of America, who has daily opportunities of observing the great difference in the figure of the legs and thighs that subsists between his field, and his domestic, slaves. Among the former, in whose quarters the necessities of their state concur with the mildness of the climate, and the natural indolence of slavery, to produce great negligence, and inattention in the nursing and management of their children, the gibbous form of these members is almost as common as among their African ancestors. Among the latter, on the other hand, who are carefully nursed, you generally find much straighter persons, and, frequently, persons which would be esteemed handsome in any nation. In the northern states, the gibbousness of the leg in the blacks is disappearing more speedily. In Princeton, and its vicinity I daily see persons of the African race whose limbs are as handsomely formed as those of the inferior and laboring classes, either of Europeans, or Anglo-Americans.

To this gibbous deformity in the legs, is to be ascribed also the next defect mentioned by Mr.

White, the too great elevation of the calves, or, as he more technically speaks, of the *gastrocnemii muscles*. And we perceive, in this country, that the one defect is diminished in proportion as the other is corrected.—To the untoward structure of their limbs, this author attributes a peculiar awkwardness in their gait, which he reckons likewise among their characteristic and specific distinctions.—I agree with him that this awkwardness, and apparent labor in walking, arises in part from their figure which is unfavorable to ease and grace of movement. But it is, perhaps not less to be imputed to their occupations, and to the total want of example, and of care to form their habits in childhood. How commonly do we see the ploughman display the habits of the ploughed field in his ordinary gait. Black domestics among us, in general, walk with as much propriety as our white servants, and black chamber maids, in particular, imitate with great address, the genteel air and manner of their mistresses.

Another criterion by which Mr. White would mark the distinction of race between the African and European consists in the length of the fore arm, which is said to be greater in the former than in the latter.—He could not, perhaps, have pitched upon

a criterion more uncertain than the proportion which this member bears to others in the corporeal system, and to the height of the whole person. The admeasurements which he acknowledges, and which were made by himself, or his friends, differ so considerably from one another in their proportions, as to be sufficient, one would think, to have weakened his confidence in his own rule. Let us take the measures exhibited by him in his discourses, stating the height of the person in one column, and the length of the ulna in another.

	Height of person.	Length of ulna.
	<i>Feet. Inches.</i>	<i>Inches.</i>
The first is of a female measured by Mr. White,	5 8 1-2	10
The second of a man by Mr. Ward,	5 8	9 7-8
The third a female by Mr. Crozier,	5 3 1-8	10
The fourth a male by Mr. Foxley,	5 1 3-4	10
The statue of the Venus de Medicis, framed according to the standard of perfect beauty conceived by the ancient art-		

	Height of person.	Length of uina.
	<i>Feet. Inches.</i>	<i>Inches.</i>
ists, gives the following proportions,	5	9 3-4

An European woman measured by Mr. White,	5	8 3-4
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Another European woman by Mr. White,	5 4	9 3-4
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The following measures I have taken of four young women in Princeton—viz. two young ladies,	5 2 3-5	9 1-4
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.	5 8	9 3-5
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A young black woman in my family,	4 9 1-4	9 1-10
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Another young black woman,	5 3	10 2-10
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a proportion not very different from that of the Venus de Medicis.

This young woman was perfectly black and removed by at least three, and probably four descents from her African ancestors.*

* Other proportions of the same woman will shew a great variation from Mr. White's picture of an African. Her foot

The peculiar structure of the skull of an African, as delineated by Mr. White, is not a more certain criterion of diversity of species than those properties which have been already mentioned. Climate, modes of living, national customs and ideas, and the degree of civilization to which a people have ar-

gave 9.7 inches,—her nose from its rise to the end of the cartilage 1.8 inches, its ridge was a right line, and its elevation at the end of the cartilage 1.1 1-2 inches. The distance from the termination of the nose to the division of the lips 1.7 inches, thence to the middle of the chin 1.2 inches; from the middle of the chin to the meatus auditorius 6.5 inches, from the cartilage which divides the nostrils to the same place 4.5 inches, from the meatus of one ear to that of the other, round the most prominent part of the occiput, removing the wool, 12 inches. A black man belonging to one of my neighbors [Mr. Craig] gives the following measures;—his height 4 feet 9 inches.—the length of his foot 10 inches,—the length of his nose from its rise to the end of the cartilage 1 9-10 inches,—its ridge is also a right line, its elevation 1 inch;—from the end of the nose to the division of the lips 1 inch,—thence to the middle of the chin 1 6-10 inches,—from the middle of the chin to the meatus auditorius 5 9-10 inches,—from the meatus of one ear to that of the other round the most prominent part of the occiput 15 inches,—the length of the fore arm 9 9-10 inches.—The lips of the black girl were somewhat more protuberant than is usual in white women of her size; those of the black man exhibited no difference in this respect from the general appearance of the lips of white men. I see, however, as much diversity in the features of our American negroes among themselves, as in those of the whites.

rived, all have an influence on the figure of this bony substratum of the head, as well as on the features of the countenance. Lavater says, he finds not a greater difference between the skulls of a German and an East-Indian, than between that of a German and a Hollander. And he observes further, that the skull of a Calmuc, or Nomade Tartar approaches very nearly that of an African.--Lavater, indeed, without having accurately considered the changes which time, which civilization, or removal into different climates may produce in the same race, has confidently asked; "What care of education can arch the skull of a negro, like that of a star conversant astronomer?" It is not supposed that education alone can effect it on a negro who has already received the basis of his constitution, in Africa. But, that time, a more favorable climate, better diet, and habits of society, may in a series of descents accomplish such a change, in the West-India islands, and the American states, can be confirmed by many examples. We often see among the children of Africa both in insular and continental America, heads as finely arched, and persons as handsomely formed, as are ever seen among the descendents of Europeans. And it was remarked of the army of Tous-

saint in St. Domingo that many of his officers were not exceeded in elegance of form, and nobleness of aspect, by any in the army of Rochambeau, or Le Clerc.*

Nearly connected with the preceeding is the next characteristic distinction of the negro species which our author assigns, founded in the supposed deficiency of mental talent. For this fact, real, or pretended, he quotes the authority of Mr. Jefferson, in his notes on Virginia.† “Comparing them [the negroes] says he, by their faculties of memory, reason, and imagination, it appears to me that in memory they are equal to the whites, in reason much inferior, and that, in imagination, they are dull, tasteless, and anomalous. It would be unfair, he adds, to follow them to Africa for this investigation. We will consider them here on the same stage with the whites. But it will be right to make great allowances for the difference of condition, of education, of conversation, of the sphere

* The critical reviewers are pleased to insinuate that the fine persons of many of the West-India blacks arise from a mixture of white blood. There are undoubtedly, in the islands, mulattos and other mixtures of blood in different degrees. But the observation in the text is applicable to men and women who have a clear, undoubted African descent.

† Page 232.

in which they move. Yet, many of them have been so situated that they might have availed themselves of the conversation of their masters : many have been brought up to the handicraft arts, and, from that circumstance, have been always associated with the whites. Some have been liberally educated ; and all have lived in countries where the arts and sciences have been cultivated to a considerable degree, and have had before their eyes samples of the best works from abroad. Never could I find that a black had uttered a thought above the level of plain narration. Misery, he continues, is often the parent of the most affecting touches in poetry—Among the blacks *is* misery enough, God knows, but no poetry. He adds, love is the peculiar æstrum of the poet. Their love is ardent, but it kindles the senses only, not the imagination. Religion, indeed, has produced a Phillis Whately ; but it could not produce a poet. Ignatius Sancho has approached nearer to merit in composition ; yet his letters do more honor to the heart, than to the head. He is often happy in the turn of his compliments, and his style is easy and familiar. But his imagination is wild and extravagant ; escapes incessantly from every restraint of reason and taste, and, in the

course of its vagaries leaves a tract of thought as incoherent and eccentric as is the course of a meteor through the sky.”—After this, Mr. Jefferson contrasts the enslaved Africans in the United States, with the Roman slaves, in order to shew the vast inferiority of the former in all the exercises of the mental powers.

These remarks upon the genius of the African negro appear to me to have so little foundation in true philosophy that few observations will be necessary to refute them.*

If the principle maintained by Lavater, and by St. Gall, that the form of the skull is indicative of the peculiar talents, and even of the inclinations and dispositions of men, be founded in nature, will it

* Mr. Jefferson reasons much better when he undertakes to defend the people of the United States, and the aboriginals of the American continent, against the aspersions of Mr. Buffon, and the Abbè Raynal, and generally, of the European writers, who impute to them great debility both of mental, and of bodily powers; because men ranging the forest for game, and pressed by incessant wants; or, on the other hand, occupied in perpetual labors in clearing and bringing into a state of cultivation the soil of a new world, have not produced such poets as Homer or Pope, such philosophers as Aristotle, or Locke, or such orators as Demosthenes or Chatham.— See his answer to 6th query, towards the end, in his notes on Virginia.

not result, as a necessary consequence, that if the climate, the mode of living, or the state of society, or even accidental causes in early life, contribute to vary the shape of that bony case which encompasses the brain, thereby pressing upon it in some points, and giving it scope in others ; in some of its cells contracting this soft substance, and giving it a freer expansion in others, these causes must, in the same degree, assist, impede, or vary the operations of the mind, and affect the character of the national genius, or of the genius of a whole race of men placed in a particular climate, or existing in a particular state of society.*

That the causes which have been just suggested, may have some effect in hebetating the mental faculties of the wretched savages of Africa, I am not prepared either to deny or affirm. I am inclined, however, to ascribe the apparent dullness of the negro principally to the wretched state of his existence first in his original country, where he is at once a poor and abject savage, and subjected to an atrocious despotism ; and afterwards in those regions to which he is transported to finish his days in slavery, and toil. Genius, in order to its cultivation, and

* See pages 95, 96, also 153—156 of this essay.

the advantageous display of its powers, requires freedom: it requires reward, the reward at least of praise, to call it forth; competition to awaken its ardor; and examples both to direct its operations, and to prompt its emulation. The abject servitude of the negro in America, condemned to the drudgery of perpetual labor, cut off from every mean of improvement,* conscious of his degraded state in the

* How few are the negroes in America who enjoy access to the first elements of knowledge by being enabled either to read, or write. Mr. Jefferson says that many of them have been placed in situations in which they might have enjoyed the society of their masters. What society, alas, can subsist between a master, and a slave; not a polite and learned slave of Greece, such as was often seen at Rome, but a wretched and ignorant African slave? Besides, if they could enjoy an intercourse much more free and intimate than is possible from the nature of their respective situations, I ask, what would there be in that society, when we consider the general characters, occupations, and conversations, of those masters, favorable to improvement in science, or the arts; or calculated to draw forth, and cultivate any of the high powers of imagination taste, or genius? The poems of Phillis Whately, a poor African slave, taught to read by the indulgent piety of her master, are spoken of with infinite contempt. But I will demand of Mr. Jefferson, or any other man who is acquainted with American planters, how many of those masters could have written poems equal to those of Phillis Whately? And with still greater reason might I ask the same question with regard to the letters of Ignatius Sancho.

midst of freemen who regard him with contempt, and in every word and look make him feel his inferiority ; and hopeless of ever enjoying any great amelioration of his condition, must condemn him, while these circumstances remain, to perpetual sterility of genius. It is unfair to compare the feeble efforts of the mind which we sometimes behold under slavish depression, with the noble ardor which is often kindled even in the wild freedom of the American forest.

The aboriginal natives of America often exhibit, as Mr. Jefferson justly remarks, some of the finest flights of imagination, and some of the boldest strokes of oratory. But we perceive these vigorous efforts of the soul only while they enjoy their rude independence, and are employed in their favorite exercises of hunting, or of war, which give ardor to their sentiments, and energy to their character. Whereas, if you cut them off from employments which, along with conscious freedom and independence, often awaken the untutored savage to the boldest enterprizes ; if, in this condition, you place them in the midst of a civilized people with whom they cannot amalgamate, and who only humble them by the continual view of their own inferiority,

you, at once, annihilate among them all the noble qualities which you had admired in their savage state ; and the negro becomes a respectable man compared with the indian. Of the truth of this remark we have striking examples in the remnants of a small tribe in the state of New-Jersey, now called the Brotherton indians, from the name of their village ; in the remnants of the Pamunkey tribe in Virginia, situated on the river Pamunky, on a small reservation of lands secured to them by the government ; in the indians situated along the Mississippi in the vicinity of New-Orleans ; and many companies of the same people who wander along the banks of the St. Lawrence within the province of Lower Canada. For wretchedness, laziness, and the destitution of almost every manly quality, they can hardly be exceeded by the most contemptible tribes of men in any quarter of the globe. They afford a proof of the deterioration of the mental faculties which may be produced by certain states of society, which ought to make a philosopher cautious of proscribing any race of men from the class of human beings, merely because their unfortunate condition has presented to them no incentives to awaken genius, or afforded no opportunities to display its

powers. Judging by the criterion which Mr. White, after Mr. Jefferson has endeavoured to establish, might not the Abbe Raynal, and other European writers who denounce the American climate as unfavorable to the growth of animal bodies, and the energies of the human intellect, justify their conclusion, by the example of the Anglo-Americans? Among these decedents of the ingenious Europeans, since their settlement in America, have appeared fewer exquisite productions in the arts, fewer works of taste, erudition, or genius, than have adorned the kingdoms of Europe, in the same period. But is this to be imputed to the climate? and not rather to the peculiar labors, and occupations required in a new world, to draw it forth from its forests, and its marshes, which have diverted the efforts of the people to other objects of more immediate necessity? But besides this primary cause of deficiency in monuments of art, and works of taste, we may reckon the sparseness of our population which prevents that constant collision, and comparison of sentiment, which contributes to strike out the fire of genius, and to correct its eccentricities and errors; the want of men of leisure, and of wealth either to cultivate the arts, or to encourage

and reward them. But because we have produced no such poets as Pope, or Milton; no such groupes of wits as adorned London or Paris in the age of Anne, and of Louis the fourteenth, has a philosopher of Europe, in the pride of her present improvements in every department of literature, a right to say, because one century has not yet produced the fruits of ten, that the American like what was fabled of the Beotian, air, has hebetated the genius of this last and largest quarter of the globe? Whence arose the difference between the Athenian, and the Beotian, or Spartan wit, but from their different states of society? And the Anglo, or Gallo-American only affords another example of this powerful influence in diversifying, in maturing, or retarding the operations of the human mind. The period has not yet arrived for displaying the full powers of the American genius. But whoever will regard with a truly philosophic eye the works which it has accomplished, the almost new creation which it has produced, within the last century, over the face of an immense continent, will be disposed rather to respect its energy and enterprize than to disparage it by an unfair comparison with the results of the wealth and population of Europe, and the ac-

accumulated improvements of so many ages. Many particular instances America can already exhibit of scientific investigation, of political eloquence, of military skill and heroism, of invention, especially in the mechanic arts, and of execution in the fine arts, which have not been exceeded in any country. And circumstances are now daily occurring to call forth more and more the energies of the American character, and to display the vividness and force of the American genius, which will, in a short time place us above the fear of the contempt, or even the rivalship of any nation. And the reproaches of deficiency of talent cast upon America by philosophers who have had little opportunity, and perhaps less disposition to form an accurate judgment upon this subject, will be doubly retorted upon Europe; for she will then be in the period of her decline, while her young competitor will be advancing to the maturity of her powers, and her glory.

In returning from this slight digression, may I not be permitted to ask, if this criterion, which is applied so unfavorably to the Africans, be just, are the modern Greeks of the same race with those republican heroes who expelled the Persians from their country; with those illustrious scholars among

whom Socrates and Plato only shone in the first rank? Would it now be possible to restore among these degraded subjects of Turkish despotism, the genius of Demosthenes, of Xenophon, or of Phidias? Or are the Copts, a people more dull and stupid than the negroes of Angola, the descendents of those Egyptians who were once the masters of the Greeks themselves? Innumerable causes may, for a long time, prevent the faculties of the human mind from arriving at full maturity in particular nations, or may totally restrain among them the growth, and development of the powers of genius. Among these causes slavery will readily be acknowledged to be the principal. The force of this objection, which Mr. Jefferson anticipated to his hypothesis, he endeavours to obviate, by comparing the negroes with the Greeks who were held in slavery at Rome. But has this philosopher sufficiently adverted to the infinite difference that must subsist between enslaved savages, destitute of the first elements of liberal knowledge, and held in contempt by their oppressors, and an ingenious and enlightened people, cultivated in the schools of philosophy, and practised in all the liberal arts, reduced to slavery by force of arms; and, even in slavery, respected by their masters?

Epictetus was, indeed, a philosopher, Terence, and Phædrus were poets, and many of the most eminent artists at Rome were slaves ; but they were philosophers, and poets, and artists before they became slaves ; or belonging to a people extolled, and revered for their ingenuity and heroism, they still possessed a certain elevation of mind, which rendered them capable of acquiring science, of cultivating the nobler powers of the soul, and displaying the beauties of imagination, and taste, even in an enslaved condition.*

* Two or three other remarks in Mr. Jefferson's illustrations of the great defect of genius in the blacks may deserve some notice. "Many of them, says he, have been brought up to the handicraft arts, and all have lived in countries where the arts and sciences have been cultivated to a considerable degree, and have had before their eyes samples of the best works *from abroad*."—I have often seen these handicraft artists, their blacksmiths, coopers, house carpenters and others. But, except in a few instances, their whole design in learning these arts was to do the coarse work on their master's plantations, the competent skill for which they acquired from artists who were nearly as coarse workmen as themselves. And what is intended in this remark, "that all of them have had before their eyes samples of the best works from abroad," I can hardly conceive. Does the writer mean statues, pictures, or household furniture ? I believe few of them have seen the most exquisite productions in any of these departments ; and those who have, I presume, have contemplated them with the same eyes with which other coachmen, hostlers, and footmen view them. And why are these

Having bestowed so much attention on this quality, which Mr. White, supported by the authority of Mr. Jefferson, supposes to constitute an essential distinction between the negro and the white man,

exquisite works of genius said to be *from abroad*? If the ingenious whites have never yet produced them *at home*, why are the poor negroes degraded from their rank in the scale of rationality, because their enslaved genius has not towered above that of their masters?

“Misery, continues Mr. Jefferson, is often the parent of the most affecting touches of poetry. Among the blacks is misery enough, God knows, but no poetry.”—When misery falls on such men as Dodd, or Young, who possess minds toned to the finest sensibilities, and adorned with refined taste, and a cultivated imagination, their sorrows will often wake the most affecting strains of the pensive muse: but when have we seen the miseries of Newgate or the galleys produce a poet?

“Love,” he adds, “is the peculiar æstrum of the poet, Their love is ardent, but it kindles the senses only, not the imagination.” With what fine tints can imagination invest the rags, the dirt, or the nakedness so often seen in a quarter of negro labourers? Besides, to awaken the exquisite sentiments of a delicate love, and to surround it with all the enchantment of the imagination, this passion requires to be placed under certain moral restraints which are seldom formed in the coarse familiarity, and promiscuous intercourse permitted, and too often encouraged among the American slaves. Yet have I, not unfrequently, seen, among these slaves, the most delicate and durable attachments take place between the sexes, where a good moral education, united with the virtuous, and amiable example of their masters and mistresses, have concurred to cultivate the heart, and produce a certain reserve and refinement in their manners.

and I hope obviated the force of their remarks, I shall treat the other differences which he enumerates with greater brevity.

The skin of the negro, he observes, *is thicker than that of the European*. The fact is admitted; and the cause of it has been already assigned in the essay. It is a natural consequence of the intense action of the sun's rays, which, by their constant stimulus, tend to incrassate its substance. The bilious mucous, likewise, which is deposited in the cellular membrane of the skin, having parted, at the surface, with the hydrogen, with which it was diluted, as has before been shewn, becomes more glutinous, by means of its coagulated carbonic ingredient, and thereby imparts a greater density to this integument, than the common mucous which fills the cells of the white skin.

If it be true, as Mr. White affirms, in which opinion he is supported by other naturalists, that the negro secretes less by the kidneys than the white man, although it cannot be an adequate criterion of

Some praise Mr. Jefferson bestows on the letters of Ignatius Sancho, though by no means so great as they deserve, considering his situation, and the means of cultivation which he enjoyed. Few white men in similar circumstances could have written so well.

a distinct species, it may account, in some measure, for the greater quantity of bile thrown out to the surface of the body, which becomes there the basis of the dark hue. It may be the cause likewise of that pungent and volatile gas, which, transpiring copiously through the skin, is perceptible in the strong and offensive odour, which distinguishes the greater part of the African race, till corrected, as it is in the United States, by a more favorable climate, or by better habits of living.

Another distinctive quality of this race given by this author is, that *they are more capable of enduring heat than the Europeans.*

This tolerance of heat by the blacks is confirmed by experience ; and probably arises, in part, from the superior thickness of the skin, which forms a deeper veil to protect the vitals from the intensity of the sun's rays. It may arise also, in part, from the refrigerating nature of that mucous with which the cells of the skin are filled ; or the more copious transpiration of the hydrogene principle in which the bile is floated to the surface, and which, in the whites, is secreted and carried off by the kidneys. An insensible evaporation, so abundant, will necessarily reduce the temperature of the body.

Besides, the constitution of the European being more highly braced by his climate, his blood, when exposed to an American or West-India sun, is more easily inflamed, and excited to the heat of fever. These causes, however, of the diminished sensation of heat in the negro, are not peculiar, exclusively, to that race. Europeans, introduced into a southern climate, if they do not fall victims to the first attacks of fever, induced in consequence of excessive heat acting on a system too highly toned, commonly suffer from these fevers, which are chiefly of the bilious kind, a considerable relaxation of its tension, with a proportionable discolouration of the skin. When the constitution has been, in this manner broken down, and fitted to its new situation, it is always found to become more tolerant of heat; as it is also rendered more impatient of cold.

It is a fact, likewise, whether it arise from the increased copiousness of insensible perspiration, or the reduced temperature of the system, or from any other cause, that they, and their descendents, are less liable than immediate emigrants from Europe or the inhabitants of the northern states of America, to certain epidemic, or contagious disorders which belong to the climate, or have been introduced by

belong to the climate, or have been introduced by infection from abroad. From the yellow fever, which prevailed in most of the sea ports of the United States during several seasons between the years 1790, and 1800, the negroes suffered less than the Anglo-Americans. But this was equally true of the French refugees from the island of St. Domingo whom the calamities of their country, at that period, had driven, in great numbers, to seek an asylum on the continent.*

The negroes, says this writer again, *are more short-lived than the whites*. From what data he has drawn this conclusion I know not, except it be from the excessive mortality in several of the British West-India islands induced by the severity of their servitude: but as far as our experience on the continent can furnish an inference, wherever the slaves are not exhausted by hard treatment, and excessive labors, it is not true. It is known in all the southern states, that the slaves,

* A species of the yellow fever may be said to be indigenous in many of the West-India islands. It is less dangerous, however, to natives whose constitution has been assimilated to the climate. But to strangers either from Europe, or the United States of America, it is almost certainly fatal.

in that district between the sea and the south eastern range of the Apalachian mountains where they have hitherto been most numerous, multiply faster than the whites. And certainly you see, in the northern states, as many old men among them, in proportion to their numbers, as among their masters *

This author is equally misinformed when he asserts that *the mammæ of negresses are longer than those of white women*. This is never seen except in slaves who are old, and worn down by continual labor. And in them, they are not longer than in white women who have been equally exhausted by fatigue and want. Nor are the black women in America, from whatever African nation they are descended, known to possess that natural veil of modesty, which, on the authority of travellers of very dubious veracity, he has ventured to ascribe to them. If ever their ancestors were distinguished by those very striking peculiarities, certain it is

* There is a negro man in the neighborhood of Princeton, upwards of a hundred years of age, who is able to walk several miles every day; and there are not a few of the same race between seventy and ninety.

that their posterity in America have entirely lost them.*

Facility of parturition in black women is assigned as another criterion of a distinct species. This must certainly have been a very inconsiderate suggestion coming from an author so well acquainted with the economy of the human body. Facility of parturition is no otherwise peculiar to the negro race, than as this operation of nature is ever easier to the inhabitants of warm than of cold climates; and much easier to women who are engaged in active, and even laborious duties than to those who indulge themselves in luxury and indolence, or who are confined chiefly to sedentary occupations. No women suffer greater hardships than those which are frequently borne by the females, of the aboriginal Americans; and none pass through the labors of parturition with less pain and inconvenience. Seldom do they require any assistance. At the critical hour they retire apart from their neighbors and friends:—they bear their infant, and do every thing necessary in such an emergency with their own hands. The women of the German emigrants who

* See p. 135, 136 of the essay.

have settled in Pennsylvania, and the western portions of Maryland and Virginia are known to be equally remarkable for their laborious lives, and their easy parturitions. In this principle likewise we find an easy and natural solution of a fact in the sacred history, which has been little understood, and too often regarded as miraculous. When Pharaoh reproached the Egyptian midwives for not having put to death, according to his order, the children of the Israelitish women, they vindicated themselves, *because the women of the Hebrews were not like those of Egypt ; For, said they, they are lively, and are delivered ere the midwives come in unto them.*

Another error still more strange in a philosopher who should be acquainted with human nature in all its various situations, and particularly with its advantages, or defects in the different states of society in which it exists, is this author's regarding as proofs of diversity of species, *tenaciousness of memory, or quickness in the senses of hearing, seeing, and smelling, which, he says, are greater in the African than in the European.* Strength of memory, or nicety of perception in any of the senses, depends principally on the situations in which men are placed, requiring, greater frequency in their exercise,

or more accurate and attentive observation of their objects, and the notices they afford. Judging of other savages by the aboriginals of this continent, with whose manners we are more particularly acquainted, we have ground to ascribe to men in that state of society, generally, retentive powers of memory; for having no other means of recording events of the utmost importance to them as individuals, or as nations, they are obliged to rely solely on the extent and force of this faculty for the preservation of their history, or for any knowledge of the traditionary opinions and customs of their ancestors. And it is surprizing with what accuracy an indian chief, taking a string of wampum in his hand, will detail from it, by the force of memory alone, aided by a few arbitrary marks worked up in its fabric, all the articles of a long and intricate treaty entered into with his nation, while he perhaps was only a youth; and even of many treaties, and other transactions, which have taken place an age before he was born; which have been transmitted to him by the older chiefs who preceeded him.

The wants, necessities, and dangers of savage life contribute likewise to give an acuteness, and quickness to many of the senses, particularly those of see-

ing and hearing, which often astonish men who have not been educated in the same hard school. In pursuing their game, or perceiving the approach of an enemy, they exhibit a nicety in these senses of which there is no example in civilized life. As the eye ranges through the forest, it catches a variation in the reflections of the light ; as the ear is turned on every side, it perceives a rustle in the leaves, a whisper, a vibration in the air, occasioned by the movement of an animal, which, by persons, not accustomed to such a vigilance of attention, would be utterly unobserved. They will track their game, or their enemy, through the forests where a European could not perceive the trace of any foot. In a night in which no star can be seen, they will pursue their course through the woods with an exactness that differs little from the accurate direction of the mariner's compass.*

* When the leaves fall from the trees in autumn, they commonly descend with the back of the leaf towards the earth on account of the specific gravity of the veins which run over it. Any animal, therefore, passing through the woods, will necessarily disturb, in its course, the regular order in which those leaves lie, by turning many of them upside down, which enables the savage hunter to follow its direction. Where the leaves have lain long, and become in a great measure combined

Hence appears the entire inadequacy to the purpose for which Mr. White adduces them, establishing a criterion of a distinct species, of that large enumeration of properties wherein he supposes the African to differ from the European.* They are either founded in error and misinformation, or are easily explained by the known operation of the powers of nature.

Mr. White makes many ingenious observations on the human hair;† but they will not be found to contradict the principles, or reasoning of the essay. I do not assume the aridity of the African climate as the sole, or even the principal cause of the woolly appearance, and close nap of the hair of the natives. The whole state of this excrescence depends much

with the soil, the surface, which has seldom been trodden by the foot of man or beast is soft and spongy enough to receive an impression which is quickly perceived by an eye accustomed to search for it. In a dark night these savages, destitute of every art for marking out the quarters of the heavens, direct their course by feeling the bark of the trees which is always roughest towards that quarter from which their severest colds, and most frequent storms arise.

* Pages 84th and 85th of his work.

† Pages 87th—98th of his discourses.

bach,* and other respectable chymists, bile contains a greater quantity of carbon, or black colouring matter, than any other secretion of the human body, except oil. When, in the course of circulation, therefore, it arrives at the surface of the body, diluted as it must be with a large proportion of hydrogene, the hydrogene, uniting more readily than the carbon with the oxygene of the atmosphere, escapes sooner by perspiration. The carbon consequently, is deposited more copiously; and, being deprived of its dilutent principle, it settles in a more viscid, and fixed state, in the rete mucosum, and there forms the basis of the black complexion.

Having made these few observations on Mr. White's chapter on the colour and complexion of man, I shall, in other things, let the essay speak for itself in those points in which that author questions the solidity of its principles, only correcting one error in his facts into which he has been misled by some careless writer, or ignorant traveller. He asserts† that "the aboriginal Americans, both in the torrid, and temperate zones are of a uniform, red

* Page 52nd of the essay.

† Page 106th of his discourses.

copper colour, except near the northern extremity of the continent, where they are of a very deep brown inclining to black, because they have probably travelled thither from the northern parts of Europe.”— It is true, on the contrary, that the natives of some regions, of Brazil and Amazonia, are nearly as black as those of tropical India. The extremes of heat and cold are found, as I have before remarked, to resemble one another in their effects upon the colour of the human skin. And in the tropical and arctic regions both of Asia, and America the complexion is black, though of a lighter shade in the latter continent than in the former. If we do not find white men in the temperate latitudes of North-America, I have, in the essay, assigned, at least, probable reasons for this phenomenon ; existing, in part, in the extreme savagism of the natives,* which exposes them, without the smallest protection, to the full influence of the sun and atmosphere, augmented

* If the ancient Gauls and Britons were comparatively a fair people, it is to be remembered that their state of society was far advanced in improvement above that of the aboriginal savages of America. Their origin likewise they derived, more nearly or remotely from the fair inhabitants of Middle-Europe, and the vicinity of the Euxine and Caspian seas.

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by their filthy customs ; and, in part, in their origin ; having sprung from the dark coloured Tartar, inhabiting the North-East of Asia. For the black, or dusky complexion, once contracted by the ancestors of a race, is continued in their offspring by a much lower climatical influence, than was originally necessary to create it.

I cannot conclude these remarks without taking notice of some animadversions on this essay by Dr. J. A. Smith, professor of Anatomy and Surgery in the University of New-York, delivered in an introductory lecture to his class Nov. 1808, and published in the New-York Medical, and Philosophical Journal and Review, Feb. 1809. Some petulancies in the manner of introducing the name, and speaking of the author of the essay, I pass over, because a merited retort might lead to a degree of asperity of language which I am not inclined to employ ; and still more, because I hope I may now appeal to the essay itself as my best vindication.

In the very few quotations which he has made from that work he has been neither liberal nor candid. “Hear,” says he, “the manner in which he,” speaking of the author of the essay, “explains the action of the climate in producing this change of

colour. He begins with the following position, that" *the skin, though delicate, and easily susceptible of impression from external causes, is, from its structure, among the least mutable parts of the body.* After which he adds, "We shall see the Doctor; in a little time, comparing this skin to bone." These two short passages are the whole of what he has been pleased to select as a specimen of the reasoning of the essay on the power of climate in effecting a change of colour in the human species. The reader will judge how far this is any competent example of the strain of that work. The Professor thought he had found an anatomical mistake in the account which the author of the essay has given of the structure of the human skin; and he wished to enjoy a humble triumph over the imaginary error. With what justice he indulges this triumph, for which he misrepresents the fact,* I shall presently shew.

* The great source of error," says he, "in the Doctor's work is in the use of the word *skin*. By *skin* an anatomist means the *cutis vera*: but Dr. Smith uses it in three different senses: 1st. to signify the *rete mucosum*; 2ndly. the *cutis vera*; and lastly, *both together*." I presume the intelligent reader will find the *skin* used in the essay in one sense only, except in a single passage, as the integument of the body, but

These remarks of the Professor, even if they were well founded, are of trifling importance, and can little affect the result of our enquiry. The more important principles of the essay, and the facts by which they are supported he hardly notices. He has collected, indeed, from Cuvier, Hunter, Camper, Blumenbach, and others, but chiefly from White a long list of varieties subsisting, or supposed to subsist between the different tribes of mankind, which he produces as unanswerable objections against the general conclusions of the essay. Of their unanswerable force however, the reader will better judge after having examined the solutions which are given of them in the work.

But it is somewhat amusing to see him after the stile of presumption and affected science which he assumes, and his pretences to mathematical precision and accuracy in measuring the lines, and capacities of the heads of different nations, making a pa-

composed of three different *lamellæ*—the *cutis vera*, the *rete mucosum*, and the *scarf skin*. In that passage the scarf skin was compared to the bones, merely in its destitution of vessels, and the little mutation to which each is subject. The fact of its wanting vessels is asserted by Blumenbach, p. 117, and by other anatomists. But as it is not necessary to the illustration of the subject, it has been wholly omitted in the present edition.

trade of quoting authors, as favoring his opinions, some at least of whom he cannot have read, or, most certainly, has not understood. If this seems a harsh accusation against the learned Professor, I have not made it without being able to give satisfactory demonstration of its truth.—He professes, to adopt the doctrine of Von Camper concerning the *facial angle*,* by which angle he attempts to discriminate the heads of different nations, and seems willing also to measure their respective degrees of beauty, or of intellect. This discovery, or fancy of Von Camper's he speaks of in such a stile of

* “This angle,” Professor J. A. Smith informs us, “is formed by the intersection of two lines at, or *parallel* to the inferior part of the nostril, one being drawn from the most projecting part of the forehead until it strikes the *edge* of the incisor teeth of the upper jaw, the other from the inferior part of the bony canal of the ear until it meets the other at the place above mentioned.”—The reader may perhaps, understand the construction of the angle from this description, but certainly “the intersection of two lines *parallel* to the inferior part of the nostril is an unusual language for an anatomical professor and a mathematician to employ. He then proceeds to say that one of these lines is to be drawn from the most projecting part of the forehead till it strikes the *edge* of the incisor teeth.—He should have said, according to the author from whom he borrows the idea, the bottom of that channel (*limbum alveolare*) containing the sockets of those teeth. It is the first time, I believe, that ever this has been called the *edge* of the incisors.

eulogy as would lead us to believe that it is received by all the Anatomists of Europe as one of the highest improvements in anatomical and physiognomical science.* Yet, after extolling this *discovery* in the highest terms, and quoting the name of Blumenbach with the same familiarity as that of Von Camper, as if he were perfectly acquainted with the writings of both these great anatomists, he seems not in the least aware that the former has entirely rejected the principle on which this facial line is drawn. Can it be because Blumenbach's work is written in latin! I will not presume such a disgraceful thing. I will, therefore, proceed to exhibit my proof, without doubting but that I shall be understood. "At

* Unfortunately for the accuracy of his geometrical language he repeatedly speaks of the greater or less degree of *obtuseness* in the facial angle, from that of 70° which is the measure of an African face, to that of 80° or 85° which is the measure of the European.

If he had followed his guide Von Camper throughout, in his diction, as well as the supposed result of his experiments, he would have taught him greater precision, at least, in his expression. "Pour peu que l'on considère avec attention l'angle dans les quatre têtes," says he, speaking of some skulls which were before him, "on reconnoitra facilement qu'ils deviennent plus *considerables*," (not more *obtuse*) "à mesure qu'on élève davantage la ligne faciale, d'où il resulte que la *plus grand dimension*" (not the *most obtuse*) "aura lieu dans les Européens."—Partie 1. § viii.

enim vero," says Blumenbach, speaking of this celebrated line, "si quid recte video, hæc regula non uno vitio laborare mihi videtur.—1°. Enim, quod equidem ex iis quæ de varietatibus faciei gentilitiæ diximus (§56) per se patet, universa hæcce *linea facialis* ad summum non nisi in eas generis humani varietates quadrat quæ mandibularum directione ab invicem variant, neutiquam vero in eas quæ contraria plane ratione facie potius in latera diducta insigues sunt.

2. Sæpissime diversissimarum gentium craniis toto, quod aiunt, cælo ab invicem discrepantibus, una tamen eademque lineæ facialis directio esse solet; vice versa, pluribus unius ejusdemque gentis craniis, quæ in universum eodem habitu invicem conveniunt linea facialis valdopere diversa. Parum enim ex sola directione faciei in craniis a latere visis judicare licet, nisi simul respectus habeatur latitudinis eorum. Ita v. c. dum hæc scribo coram video cranium bigam Æthiopis scil. Congensis, et Sarmatæ Lithuani; utrisque linea facialis fere una eademque; habitus tamen maxime diversus si angustum et quasi carinatum Æthiopis caput cum quadrato magis Sarmatæ comparaveris. Contra vero alia bina

Æthiopum crania ad manus habeo, faciali linea mirum quantum ab invicem abhorrentia, utroque vero, si a facie spectetur, angusta et quasi compressa calvaria, fronte fornicata Æthiopicam originem aperte testante.

3. Denique vero Camperus ipse, in iconibus operi suo subjunctis, lineis suis binis normalibus adeo arbitrarie et inconstanter usus est, toties punctis contactus variat, secundum quæ lineas istas dirigit, et a quibus omnis earum vis et fides pendet, ut seipsum in earum usu incertum et ambigue hesitanti tacite profiteatur." Blum. de gen. hum. degen. in specie. § 59, 60. p. 200—203.

How could the Professor, in the face of this authority, introduce to his class this all-important facial line which is, in a great measure, to decide the controversy concerning the original, or factitious varieties of the different tribes of men, as if it were an uncontroverted discovery of *the great Camper*, and yet, in the same page, I believe in the same sentence, quote the *name* of Blumenbach, without ever informing them that this principle of Camper's has not only been questioned, but utterly denied, and shewn to be inapplicable to every purpose of national discrimination, by that superior anatomist,

if he had ever read, or understood the work to which he has the confidence to refer?

But a proof still more pointed to this purpose is found in the fourteenth page of his introductory lecture. Having quoted from the essay the following sentences,—1st. “Anatomists inform us that, like the bones, it,” meaning the skin, “has few or no vessels, and therefore, is not liable to those changes of augmentation, or diminution, and continual alteration of parts, to which the flesh, the blood, and the whole vascular system is subject.” 2nd. Anatomists know that people of colour have their skins thicker than people of fair complexion, in proportion to the darkness of the hue,”—the Professor proceeds; “as the Doctor,” meaning the author of the essay, “has not given us his authority for these two opinions, and, as I never met with *any thing like* them, I conclude he quotes from memory, and is liable to be mistaken; the former is certainly erroneous, and, I believe, the latter.”

The former of these sentences contains the only part of the essay in which the term *skin* is employed where only the scarf skin, or epidermis was intended. Confining the expression in this manner the opinion is justified, as I have before said, by the

best anatomists. It is positively asserted by Dr. Blumenbach, § 42. p. 117, of the work already quoted. “Epidermis structura simplicissima, nervis, vasisque plane destituta.” And, with regard to the opinion, or the fact stated in the second, hear the same author, p. 118. “Utrumque quoque hocce affine stratum *sedem coloris* integumentorum ita constituit, ut in candidis hominibus, &c. In fuscis vero, aut alio colore infectis, princeps pigmentum cutaneum reticulo Malpighiano inhæreat et quo *fuscius* reticulum sit, eo *crassius* quoque, et propius ad membranulæ sui generis speciem accedens.” Again, p. 162, speaking of the smooth and silky, or shining appearance of the skin in dark coloured nations, particularly in the Caribæans, Ethiopians, Otaheiteans, and even the Turks, he says; “In omnibus sive a teneriore epidermidis, sive a *crassiore* mucî Malpighiani strato pendere, in aprico est.”

What, now, are we to think of Dr. J. A. Smith’s acquaintance with Blumenbach? What are we to think of his acquaintance with his own profession, since he declares he has never met with these opinions, nor with *any thing like them*?*—Dr. J. A.

* He may find them in a great variety of authors which are in the hands of every naturalist.

Smith, likewise, in order to impugn the principles of the essay on the subjects both of the cause, and the seat of colour, is pleased to say ; “so far as I know, the bile does not tinge the rete muscosum, but remains in the *cutis*, and colours that in the same manner that it does the opaque cornea of the eye.” Yet the same great anatomist, whom I have already quoted so often, calls this fold of the skin, “*sedem coloris*.” And further adds, “*utrumque stratum ita constituit natura, ut princeps pigmentum cutaneum reticulo Malpighiano inhæreat.*”*

Let the reader now judge of the modesty of that gentleman in the following sentence in which he evidently alludes to the author of the essay. “Men who call themselves philosophers, or who wish others to consider them as such, too often suppose that this title is acquired, not by a thorough acquaintance with a few sciences, but by a superficial knowledge of the whole : hence they frequently incur the ridicule of the world by writing on subjects of which they are ignorant.”—I certainly owe Dr. James Augustine Smith many thanks for this prudent admonition, this gentle discipline, which, no doubt,

* Edit. Gottingæ apud Vandenhoek et Ruprecht, 1795.

his superior wisdom well entitles *him* to give to *me*.— But on whom now rests the ridicule? Not for possessing even a superficial knowledge of the whole circle of sciences, for that I presume, after what we have just seen, he does not arrogate to himself; but for pretending to such an extensive acquaintance with the writers on his own branch, as it is evident he does not possess.

“That climate,” he concedes, “does produce great changes on all animals, no one will deny. Thus, if you transport a sheep covered with wool from England into Syria the wool will be changed into long silky kind of hair,—but if you reconvey it to England, it will recover its wool. Not so the African; he approximates not the European by changing his climate, as is fully evinced on this continent.”—That the progeny of Africa, have not changed their complexion, or have changed it but little, is true; and the hair, which is, in a great degree, governed by the law of the complexion, has, likewise, exhibited but small alteration. The causes of these phenomena are assigned in the essay. But it is no less true that, in their persons and features, they have undergone, and are daily undergoing a very obvious revolution, by which they are ap-

proaching more and more towards the European, or Anglo-American standard. And if our Professor has not perceived it, his observation must have been very limited and negligent indeed. Even the celebrated facial angle, of which he makes so high account in his system, has, in the blacks born in the United States, become considerably *less acute* than it is in the natives of Africa. On the subject of the African person many remarks have been made, and many facts adduced in the essay. I will here add only one other fact respecting this angle. I have measured it in several blacks in Princeton who had every indication in their complexion and hair of a pure African descent, and have found it with as much accuracy, I presume, as it can be taken in living subjects, from 73° to 78° . Their foreheads, at the same time, are high, bold, and open.*

Near the conclusion of this introductory lecture he takes his leave by saying; "Were I to follow Dr. Smith" (the author of the essay) "through his whole work, you might suppose I have some enmity to that gentleman." I think that not at all

* On the other hand, I have in my family an old black woman with a true African forehead narrow and wrinkled, who gives a facial angle of 71° .

improbable ; nor is it very difficult to divine the cause that has awakened his displeasure. He hoped to find in the anatomy of man an invincible objection against the identity of the human species, which might furnish arms to infidelity in her impotent attacks against the truth of divine revelation, and he seems to be provoked at any attempt to wrest the weapons out of her hands.

I cannot close these observations without reprobating in the strongest manner, that disingenuous mode of assailing the holy scriptures which has become fashionable with a certain class of writers, and which this gentleman affects to imitate. They speak of them with oblique and ambiguous respect, as if their authority ought, in all cases, to command the belief of mankind, while, at the same time, it is suggested that if we do believe them, it must be in spite of nature, and of the most certain physical facts. Thus do these authors study to undermine revealed religion by hinting that its friends require only implicit faith in opposition to all the truth of science. This mode of attack I cannot regard as either fair, or manly. Let natural science preserve its proper place. We never wish to abridge its lawful domain. But let it not officiously go out of

its own sphere to assail religion by this species of wily ambuscade. Let infidels appear in their true form ; if they seek the combat, we only pray, like Ajax, to see the enemy in open day. The more profoundly natural science has been explored, the more have those objections to the sacred writings been dissipated which ignorance once thought she had found in the system of nature. These puny and half-learned sciolists, who affect to treat with sarcastic leer the oracles of God, would do well to remember, if they are susceptible of advice. or of shame, with what modesty and humility of heart those sublime and genuine sons of nature, from Newton, down to Sir William Jones have thought it their glory to submit their superior minds to that wisdom which came down from Heaven.

Doubtless the Professor will be able, in the course of his lectures, to point out many anatomical as well as physiognomonical varieties, subsisting between the different nations and tribes of men. But if he can find in the climate, the modes of life, and other secondary causes, a satisfactory account of the change in the facial angle of a Swede, a Pole, or Hungarian, and I might add other nations of Europe,

from that of their Asiatic ancestors, from whom it is ascertained beyond reasonable doubt, that they have derived their origin; the same ingenuity, I presume, will be competent to account for the remaining differences which, for want of the like reflection, seem, at present, to embarrass him.

STRICTURES
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ON THE
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LORD KAIMS, in a preliminary discourse to his sketches of the history of man, has undertaken to combat the principle of the unity of the human species. As Mr. White has proposed to assemble against it all the objections which can be derived from the science of Anatomy, Lord Kaims has endeavoured to collect, and present to us in one united view, those which arise from the history of man, and from such speculative principles, or such moral causes, as are supposed chiefly to influence the state and condition of human nature, as it relates to the particular subject of his discourse. The reputation of this writer stands so high in the literary world as a philosopher, that it is justly to be presumed, he has advanced whatever can be most plausibly urged from these sources against the opinion which he opposes. If his objections, therefore, can be fairly set aside, or successfully answered, the refutation of such an antagonist will probably be regarded as

bringing no inconsiderable addition of strength to the preceeding argument.

I hope, then, to be able to shew that with regard to many facts on which his lordship relies, in this disquisition, he has been egregiously misinformed ; and that almost the whole of his reasoning, even where his facts have been better ascertained, is inconclusive, or concludes only against his own principle.

His dissertation he commences with a speculative argument drawn from his own ideas of propriety, and the wisdom of providence.—“Certain it is,” says he, “that all men, more than all animals, are not equally fitted for every climate. There were, therefore, created different kinds of men at first, according to the nature of the climate in which they were to live. And if we have any belief in providence, it ought to be so : because men, in changing their climate, usually become sickly, and often degenerate.”

The power of climate to affect the figure and general appearance of *the person*, which his lordship, in this paragraph acknowledges, when he informs us that, in consequence of changing their habitations mankind often degenerate, is the very principle on which, united with the influence of diet

and manners, I presume to account for the varieties which distinguish the different nations of men from one another. Are not the blacks of Guinea, the dwarfs of Siberia, degenerate races compared with the inhabitants of France, or England, of Turkey, or Persia? If these people had attained, in their own climate, the perfection of their nature, while civilized Europeans had, by being transplanted thither, degenerated far below them, or they had degenerated by being removed to Europe, the argument would have had some force. But since these people are found to improve in their appearance and form, by being removed from their own climate, as has before been shewn with regard to the Africans in America; and since the greatest degeneracy of the European, on his removal to Africa, or Lapland, consists only in a nearer resemblance to the natives of those countries, the example concludes strongly against his lordship's principle.

But "men," he says, "in changing their climate, usually become sickly."—In many instances, they do. But, is it a given principle that man is not made for situations in which he is liable to encounter danger, or disease? He were then only an intruder upon this world. True, it is, that great and

sudden changes of climate are hazardous ; but not more hazardous than equally great and sudden changes in our habits of living. This argument, therefore, proves only that such alterations ought always to be made with due precaution. And if this prudential conduct be observed the human constitution has been found capable of enduring the influence of every climate. It becomes, in time, assimilated to its situation. And in southern regions especially, the bilious habit, and the dark complexion, which, in many instances, were originally the effects of disease, become, at length, necessary to the most comfortable and healthful state of the body.—In America we are liable to disease by removing incautiously from a northern to a southern State and even from one part to another of the same State : but shall we conclude thence that we are not of one species from New-Hampshire to Georgia ? Shall we conclude that the top of every hill, and the bank of every river are inhabited by different species, because the latter are less healthy than the former ? The constitution often becomes so attempered even to an unhealthy region, that it feels augmented symptoms of disorder on returning to the most salubrious air and water : but does this prove that na-

ture designed that such men should never remove, when it might be in their power, to a situation in which they could drink clear water, or breathe a pure atmosphere?

His lordship's second argument is certainly an extraordinary example of philosophic reasoning.—“Men, says he, must have been originally of different stocks, adapted to their respective climates, because an European degenerates both in vigor and colour on being removed to South America, to Africa, or to the East-Indies.”—Would not true philosophy have drawn from this fact a contrary conclusion? Certainly, if an European had not changed his colour, with various other properties of his constitution, as he does, that is, if he had not *degenerated* to a nearer resemblance to the natives of Africa, America, or the Indies, it would have been a much stronger evidence of the original difference of the respective races.

The degeneracy of the human constitution often produced by change of climate, he confirms by the example of a Portuguese colony on the coast of Congo, who, in a course of time, have degenerated so much, that they scarce retain the appearance of men.”—A fact more to the purpose of the preceeding essay

could not be adduced. Apply it to the case of the neighbouring tribes of negroes, and of Hottentots. Although they are now so rude that scarcely do they retain the appearance of men, does not his own example demonstrate that, in some remote period, they may have descended from the same original stock with these degenerated Portuguese?

His lordship has been egregiously deceived with regard to certain facts on which he professes to ground his opinion that the climate of America is not adapted to European constitutions.—“Charleston in Carolina, he asserts, is insufferably hot; because it has no sea-breeze. Jamaica, he continues, is a more temperate climate. But the inhabitants of both die so fast, that, if continual recruits did not arrive from Europe to supply the places of those that perish, the countries would be soon depopulated.”—All these assertions are equally and entirely erroneous. And if a philosopher, and a lord of sessions in Scotland, can betray so little acquaintance with a country, which, from its long and intimate connexion with Great-Britain, he might be expected to understand better than any other, we may justly presume that he is still less informed with regard to the state of the Asiatic, and African nations; and

that the objections drawn from them by him, and by inferior writers, against the doctrine of the unity of the human race, are still more weak and unfounded.

This distinguished author employs as another argument for an original diversity of species among mankind, that common European error, that “the natives of America are destitute of hair on the chin, and body.”—That philosophers, like other men, should sometimes be liable to be deceived by false information is not surprising: but they are certainly blameable, after having found, in so many examples, the egregious mistakes of voyagers, and the utter incapacity of many of them for accurate observation, lightly to rest on such dubious tales, an argument against the most sacred opinions of mankind.

His lordship says, in the next place, that “the northern nations, to protect them from the cold, have more fat than the southern,” whence he again draws this erroneous inference, that “these nations are of different races, or species, adapted by nature to their respective climates.” Is it not evident that this fact furnishes ground for a directly contrary conclusion: that the human constitution hath been endowed by the Creator, with such pliancy as ena-

bles it with facility to assume those habits which fit it to subsist in every region. His goodness appears in forming the world for man, and, therefore, in not confining him, like the inferior animals, to a bounded range, beyond which he cannot pass, either for the acquisition of science, or the convenience of subsistence. And both his beneficence, and wisdom are seen in mingling in the human frame such principles as, under a prudent direction, always tend to counteract the hazards of a new situation. Fat contributes to protect the vitals from the dangerous effects of extreme cold. Whence we see, in the wise arrangements of divine providence, that animals which are destined to run wild in the forest, not only increase their coat of hair, or fur, but augment their fat, at the approach of winter. But, this covering being too warm for southern latitudes, provision has been happily made for throwing it off, in those regions, by a more profuse perspiration. The physical cause of this effect ought to have been no secret to a philosopher who treats of *human nature*. Not to mention other effects of the relaxing influence of heat, or the bracing power of cold, on the human constitution, and the nature, or the quantity of nourishment it can re-

ceive and digest, in the one case, or in the other, it is sufficient to observe, that the copious perspiration, which takes place in southern latitudes, carries off the oily with the aqueous parts, and, in consequence, tends to render the habit of body thin ; but a frigid climate, by closing the pores, and obstructing the evaporation of the oils, while the aqueous fluid more easily escapes, condenses them into a coat of fat, which contributes to preserve the warmth of the animal system. Experience verifies this influence of climate. The northern tribes which issued from the forests of Germany, and overrun the southern provinces of the Roman empire, no longer retain their primitive grossness, and their vast size. The human constitution, in Spain, and in other countries to the South of Europe is slender in comparison with the German of Tacitus. And Europeans, in general, have become more slender by emigrating to the southern provinces of America. Here is a double experiment made, within the memory of history, on entire nations. The argument, therefore, which this writer thought to derive from *the fatness* of northern, or *the leanness* of southern nations, is utterly inconclusive for the purpose for which he urges it, the proof of *an original difference in the species of men*.

His next fact is, that “the skin of the negro is more cool than that of the white, and, therefore, better adapted to their fervid climate. For a thermometer, applied to the body of an African, will not indicate the same degree of heat as when applied to the body of an European.”

This phenomenon is admitted, and, I presume, sufficiently accounted for in the essay. It results from the same causes which contribute to form the colour. The observations, however, on the temperature of the bodies of Europeans and Africans have probably been taken in those latitudes in which either heat or cold has been the predominant affection of the atmosphere. The increased temperature of the whites will be chiefly visible where heat greatly prevails: because the European constitution, being more tensely braced than that of Africa, suffers, under the fervors of a tropical sun, at least till it is broken down, and assimilated to its new climate, the additional heat of an habitual fever. When the atmosphere is at the temperature of about seventy or seventy-five degrees, and the subjects of the experiment have been perfectly tranquil, I have not been able to perceive, by the thermometer, any sensible difference in the warmth of two persons, the one

white, and the other black. But, in order to render such an experiment as accurate as possible, the greatest care should be taken that the subjects of it be of the same age, the same sex, the same degree of natural vigor, activity, and health, and, as far as can be judged, in every respect equal in their personal properties.

The reader, I doubt not, will readily excuse me if I treat a few observations, which immediately follow in this dissertation, a little more briefly.

“Is it possible, his lordship asks, to account for the low stature, and little feet, and large head of the Esquimaux ; or, for the low stature and ugly visage of the Laplanders, by the action of cold ?”

I have endeavoured to account for them from the *action of cold*, in conjunction with the *state of society*.

“But the difference of latitude between the Laplanders, and the Norwegians, or Fins is not sufficient, in his opinion, to account for the difference of features.”

This phenomenon, I presume has been explained. The temperate climates border upon eternal cold, and civilized on savage society, in all those proportions of the globe. And the influences of these two power-

ful and opposite causes are fully adequate to account for the difference in the effects.

His lordship confesses that "it has lately been discovered, by the Pere Hel, an Hungarian, that the Laplanders were originally Huns."

Pere Hel has, no doubt, given authentic evidence of the fact, in the striking similarity which exists between the elementary principles of the two languages, as appears by the conviction it has produced in this learned and ingenious writer. But how shall we account for it, unless it be from the prepossessions created by his theory, that it should not have occurred to him, that, from the same Huns, are descended, likewise, some of the fairest, and most beautiful nations of Europe?

As an objection against the power of climate to change the complexion, he says, "the Moguls, and the southern Chinese are white." If he means that they are not black, it is true. But if he means that their complexion is, in any degree, to be compared to the whiteness of the Europeans, he has been egregiously misinformed. That the Moguls are less discoloured than some other nations in the same latitudes, is to be ascribed to the state of civilization

at which they had arrived previously to their taking possession of their present seats. Migrating originally from a high temperate latitude, the arts of civilized life have enabled them to preserve their colour against the worst effects of their present more southern exposure.

He is not less misinformed when he says, that Zaara is as hot as Guinea, and Abyssinia hotter than Monomotapa: yet, he adds, the inhabitants of the former are not so black as those of the latter.”—Zaara is not so hot as Guinea; nor is Abyssinia hotter than Monomotapa. But if the temperature of these countries were equal, there are other causes which produce a wide difference between the figure and complexion of the nations which respectively inhabit them. The Abyssinians, who derive their origin from Arabia; are enabled, by their partial civilization, to preserve some resemblance to the features of their ancestors. Their high and mountainous elevation, raises them above the region of extreme heat in the tropical latitudes of Africa. The Monomotapans are evidently descended from the negroes of the equator. And their savage habits have continued among that portion of the people, who

are not of Caffre origin, the figure, and other peculiarities of their ancestors, without great variation.

His lordship proceeds, "there are many instances of races of people preserving their original colour in climates very different from their own."—This can be true only of people who have made very considerable advances in the progress towards civilization. The pretended fact, however, is utterly void of foundation in the extent in which he affirms it.—He very incautiously adds, "And there is not a single instance to the contrary."—To his lordship, surely, the Portuguese of Congo might have been that instance.

Another argument for the original diversity of the races of men, on which some reliance is placed in this preliminary discourse, is founded on the variety of disposition, spirit, and genius displayed by the different nations of the world. But, on this part of the subject, many of the author's remarks appear so weak as to be utterly unworthy of his general character as a philosopher, and a judicious writer.—Among the oriental islands, "some there are, he says, whose inhabitants are hostile, others are hospitable to strangers."—To this we may justly answer, that kindness, or aversion to strangers de-

pend on so many contingent causes that a more equivocal foundation can hardly be mentioned on which to rest the argument for the existence of different species of men: Nations which have been often exposed to hostile attacks, will become habitually suspicious of foreigners, and prone to repel them from their shores: those, on the other hand, who have seldom seen the face of an enemy, will be equally disposed to receive them with frankness and hospitality. On the same ground might he have demonstrated that Europe, in the tenth and in the eighteenth century was inhabited by different species of men, from the facility and security with which a stranger might, in one of those periods, have passed through all its kingdoms; and the hazards to which, in a similar tour, he would have been exposed in the other.—His lordship goes on to confirm this argument by examples of some nations “who are full of courage and prompt to combat;” and of others who hardly know the arts of war,” or have “confidence to meet an enemy in the field.”—With equal reason might he conclude that the Greeks are not of the same species now as when they gave birth to such heroes as Miltiades, Agesilaus, or Alexander. That the Romans were not of the

same species under Cæsar, when they conquered, as under Augustulus, when they lost a world. And that, among the Jews, the Essenes, who were peaceful hermits who fled from the sound of war, were not of the same species with the martial Pharisees who resisted Titus. But the argument is too absurd to merit even this answer.

He speaks in the next place, of “the cowardice of the American indians,” with whose character and manners he is manifestly unacquainted, as forming one feature of a distinct species. The proof of their cowardice consists entirely in their mode of fighting which is commonly from behind the shelter of thickets, or of large trees, seldom exposing themselves to an enemy in the open field.—An indian philosopher, who should have examined the subject with no more attention than his lordship appears to have done, would probably retort the charge of cowardice on the Europeans; because they do not suffer torture like the natives of America. Nations have different ideas of courage and of honor, and they exert these principles in different ways. The military education of an indian consists in learning to make war by stealth and to endure pain with fortitude. The reasons of their

conduct in both,* arise naturally out of their state of society, the thinness of their population, and the physical state of their country. No people have superior courage. They differ from civilized nations only in the manner of exercising it.

Another example of the difference of dispositions in the various races of men, which, in his lordship's opinion, contributes to establish his principle, he supposes he has found in "the Giagas a nation of Africa, who, says he, bury all their own children as soon as born, and supply their places with others stolen from the neighbouring tribes." I quote this passage merely as one out of many examples of the credulity of philosophers who declaim with vehemence against the faith required by the gospel. It might surely have occurred, even to his lordship's zeal, that the race of the Giagas could not have existed above one generation. Yet these stolen children seem, by miracle, to be constantly transformed, for his lordship's use, into Giagas.

An anecdote of a similar nature, he gives us from the history of the Japanese. "The Japanese, says he, differ essentially from the rest of mankind, because, when others would kill their enemies, they

* See APPENDIX.

kill themselves through spite.”—This is certainly a very extraordinary distinction. And another not less so is, that “they never supplicate the gods, like other men, in distress.”—The difference is, no doubt, very wide between them, and those men who never supplicate their Maker at any other time. But one would think that a philosopher argued in this weak manner with intention to expose to ridicule a cause which he only fictitiously espoused.

His lordship indeed acknowledges that these arguments are not altogether conclusive, and therefore, proceeds to produce others which are to carry with them, I presume, irresistible evidence. I shall quote them at full length, that I may diminish nothing of their force.

“But not to rest, says he, upon presumptive evidence, few animals are more affected than men generally are, not only with change of seasons in the same climate, but with change of weather in the same season. Can such a being be fitted for all climates equally? Impossible.—Horses and horned cattle sleep on the bare ground, wet or dry, without harm; and yet, were not made for every climate: can man then be made for every climate, who is so much more delicate that he cannot sleep on wet ground without hazard of some mortal disease?”—This is

the argument. But is it not refuted by the uniform experience of the whole world? The human constitution is the most delicate of all animal systems : but it is also the most pliant, and capable of accommodating itself to the greatest variety of situations. The inferior animals have no defence against the evils of a new climate but the force of nature. The arts of human ingenuity furnish a protection to man against the dangers which surround *him* in every region. Accordingly, we see the same nation pass into all the climates on the globe ; reside whole winters at the pole ; plant colonies beneath the equator ; pursue their commerce and establish their factories in Africa, Asia, and America. They can live equally under a burning and a frozen sky, where many of those hardy animals could not exist. It is true, such great changes ought not in general to be suddenly hazarded, nor without those precautions which experience has shewn to be useful for the preservation of health. But, when they are prudently made, habit soon accommodates the constitution to its new position ; and the changes which the climate itself introduces into the constitution enable it better to resist any dangerous effect of the influences by which they are produced.

But, "men cannot sleep on the wet ground without hazard of some mortal disease."—By *men* I presume his lordship means Europeans, because the savages of America, sleep on the naked earth without hazard, in every change of weather, or of season. Whether he admits the American savage into the rank of men or not, he concludes, from this circumstance, that they are of a different species from the civilized and polished people of Europe. If he had visited the forests of the new world, he would have found in this, as well as in many other instances, how little he was acquainted with human nature beyond the sphere of his own country. He would have seen this argument, on which he rests with so much confidence, entirely overturned. He would have seen Europeans, or the descendents of Europeans, without any mixture of indian blood, become, by habit, as capable as savages, of using the naked earth for their bed, and of enduring all the changes of an inclement sky. The Anglo-Americans, on the frontiers of the United States, who acquire their subsistence chiefly by hunting, enter, with facility, into all the customs of the neighbouring savages, and endure with equal hardiness the want of every convenience of polished society.

And not only the hunters, who have long been accustomed to those habits of living, are able to lodge without injury, on the damp earth, but the large companies of men, women, and children, who are continually removing from the interior parts of the United States to the western countries for the sake of occupying new lands, encamp every night in the open air. They sleep on the bare ground with, perhaps, only a few dried leaves beneath them; and frequently exposed to heavy showers of rain or snow. Kindling a large fire in the center of their encampment, they sleep round it, extending their feet towards the pile. And, while the feet are kept warm, as they have often informed me, they seldom suffer any serious injury to their health from the coldness of the earth or the vapors of the atmosphere.

“But, the argument which I chiefly rely on,” continues his lordship, “is, that, were all men of one species, there never could have existed, without a miracle, different kinds, such as exist at present. Giving allowance for every supposable variation of climate, or of other causes, what can follow but endless varieties among *individuals*, as among tulips in a garden? Instead of which we find men of dif-

ferent *kinds* ; the individuals of each kind remarkably uniform, and differing no less remarkably from the individuals of every other kind. Uniformity without variation is the offspring of nature, never of chance."

How often do philosophers mistake the eagerness and persuasion of their own minds, resulting from violent attachment to their theories, for the genuine light of truth and reason !—The first part of this argument consists only of an ardent and zealous assertion, which, as it rests on no proof, requires no refutation.—The second part contains only a fine similitude : but that similitude, as far as it has any relation to the question, operates directly against his principle. " Giving allowance for every supposable variation of climate, or other causes, what can follow, he asks, but endless varieties among individuals, as among tulips in a garden ?"—I answer, that such varieties among individuals are found in every climate, in every region, in every family. But different climates, as far as they possess any power to alter the human physiognomy, must necessarily create varieties, not among *individuals*, but *kinds*. For the same climate, in similar circumstances, operating uniformly, as far as it extends, must occasion

a certain uniformity in the *kind*, and operating differently from every other climate, must render that *kind different* in its appearance from all others.—

“Uniformity, he continues, is the offspring of nature, never of chance.” Could his lordship mean to insinuate, by this remark, that the operations of climate are the effect of chance, or that all the varieties produced by it are not governed by uniform and certain laws?

He adds, “There is another argument that appears also to have weight;—horses, with respect to shape, size, and spirit, differ widely in different climates. But let a male and female, of whatever climate, be carried to a country where horses are in perfection, their progeny will improve gradually, and will acquire, in time, the perfection of their kind. Is not this a proof that all horses are of one kind?”

His lordship seems to reason only against himself. Is it not equally true of the species of men, as of that of horses, that it varies its appearance, and many of its properties, by every removal to a new climate, and by every change which the state of society undergoes? The present nations of Europe are an example in the way of improvement; the

Europeans, whom he acknowledges to have degenerated by being removed to Africa, Asia, and South-America, are an example in the contrary progression. Carry the natives of Africa, or America to Europe, and mix the breed, as you do that of horses, and they will, in a short time, lose their dusky hue, and all the peculiar defects of their figure ; and will acquire, in the same number of descents as horses, or any other animals, the high perfection of form which is seen in that polished country.

No, says his lordship, “ a mulatto will be the result of the union of a white, with a black.”—That is true in the first descent, but not in the fourth or fifth, in which, by a proper mixture of races, and by the habits of civilized life, the dark tinge may be entirely effaced.

There resided in the college of New-Jersey, in the years seventeen hundred and eighty five, six and seven a striking exemplification of the above remark, in two young gentlemen of one of the most respectable families of the state of Virginia. They were descended in the female line from the indian emperor Powhatan, and were in the fourth descent from the princess Pocahuntis, a high-spirited and generous woman. Although all their ancestors in Virginia had retain-

ed some characteristics, more or less obvious, of their maternal race, in these young gentlemen they appeared to be entirely obliterated. The hair and complexion, of one of them in particular, was very fair, and the countenance, and form of the face, perfectly Anglo-American. He retained only the dark and vivid eye which has distinguished the whole family, and rendered some of them remarkably beautiful. If his lordship's argument, then, have any weight, as he supposes, it is only against his own position.

But he still pertinaciously repeats the conclusion, "That mankind must have been originally created of different species, and fitted for the different climates in which they were placed, whatever change may have happened in later times, by war, or by commerce."

Let us ask, why *fitted* by a *different organization*, for the *different climates in which they were placed*? Is it because they could not exist in other climates? or because they attain the greatest perfection of their nature only in their own? Both these reasons are contradicted by experience. Let us remember "the changes which have been produced by war and by commerce." Nations have been transplanted

from their original soil to other climes ; and have continued to exist, and to flourish. Foreigners from the most distant regions, have become assimilated to the natives. Instead of attaining, in their primitive abodes, the highest perfection of their nature, they have improved it by migrating to new habitations. The Goths, the Tartars, the Africans, have greatly ameliorated both their bodily, and mental qualities by changing those skies for which it is said, “ they were peculiarly *fitted* by nature.” They must, therefore, have defeated, or improved upon, the designs of the Creator, or, at least, have shewn that the precautions, attributed to him by this author, were superfluous.

Lord Kaims having endeavoured to demonstrate, in the manner we have seen, the existence of original varieties among mankind, proceeds in a similar strain of reasoning ;—“ There is a remarkable fact which confirms the foregoing conjectures ; as far back as history goes the earth was inhabited by savages, divided into small tribes, each tribe having a language peculiar to itself. Is it not natural then, to suppose that these original tribes, were different races of men placed in proper climates, and left to form their own language ? But this opinion we are

not permitted to adopt, being taught a different lesson by revelation. Though we cannot doubt of the authority of Moses, yet his account of the creation is not a little puzzling. According to that account all men must have spoken the same language, viz. that of their first parents. But what of all seems the most contradictory to that account is the *savage state*. Adam, as Moses informs us, was endued by his Maker with an eminent degree of knowledge, and he, certainly, must have been an excellent preceptor to his children, and their progeny among whom he lived several generations. Whence then the degeneracy of all men to the savage state? To account for that dismal catastrophe mankind must have suffered some terrible convulsion. That terrible convulsion is revealed to us in the history of the tower of Babel. By confounding the language of all men, and scattering them abroad upon the face of the earth, they were rendered savages. And to harden them for their new habitations, it was necessary that they should be divided into different kinds, fitted for different climates. Without an immediate change of bodily constitution, the builders of Babel could not possibly have subsisted in the burning region of Guinea, or in the frozen re-

gion of Lapland. If the common language of men had not been confounded upon their attempting the tower of Babel, I affirm that there never could have been but one language. Antiquaries constantly suppose a migrating spirit in the original inhabitants of the earth, not only without evidence, but contrary to all probability. Men never desert their connexions, nor their country without necessity. Fear of enemies, and of wild beasts, as well as the attractions of society, are more than sufficient to restrain them from wandering; not to mention that savages are peculiarly fond of their natal soil."

When ignorance, or profligacy pretends to sneer at revelation and at opinions held sacred by mankind, it is too humble to provoke resentment. But when a philosopher affects the dishonest task, he renders himself equally the object of indignation and contempt. Error and absurdity are at no time so despicable as when in a ridiculous confidence of shrewdness, or affectation of wit, they assume airs of superior sagacity, and contemptuous leer. To point out all the instances of weakness and mistake in this paragraph would exceed the bounds which I have prescribed to myself in these strictures. One important and obvious error I shall take notice of,

and then shew that the whole foundation of this reasoning is false, and indicates even extreme ignorance of human nature, as it exists in that state of society of which he speaks.

“Without an immediate change of bodily constitution, says he, the builders of Babel could not possibly have subsisted, in the burning region of Guinæa, or the frozen region of Lapland.”—How, then, do Europeans, at this day, subsist both in Guinea, and Lapland, without undergoing this previous and miraculous change of constitution? Have not the nations of Europe armies, or colonies, or travellers in every region on the globe? But if his lordship believed that the intensity of a frozen, or a torrid climate was sufficient to have destroyed the builders of Babel, he should have no objection, surely after such a declaration, to admit that men, from these causes, may suffer great changes in their complexion, and figure. Yet, his whole object is to combat this principle. He allows the greater, he denies the smaller effect. But errors or contradictions of this kind, we often have occasion to see, that philosophers, in their zeal against an obnoxious doctrine, easily overlook.

I proposed, in the next place, to shew that the whole foundation on which the reasoning in this paragraph rests is false, and betrays extreme ignorance of human nature in that state of society of which the author speaks.—It rests on two principles ;—1st. That the posterity of the original parent of the race, or any part of them could never have become savage, if he had possessed that wisdom and goodness ascribed to him by the sacred historian. And 2dly, that, on this supposition, also, there never could have existed a diversity of languages.—On the other hand, hardly any conclusion in moral science can be more certain than that the savage condition of a large proportion of mankind must have been the natural result of the state of the earth, as Moses represents it immediately after the deluge.—And, that, out of the dispersed state of its savage tribes, would necessarily arise, in time, a great diversity in the languages of men.

I am not now going to explain the history of Babel ; nor to defend the miracles recorded in the sacred scriptures. I take the matter on his lordship's ground, who, no doubt, fervently disbelieves all miraculous interposition in this or in any other case, and shew that, *in the nature of things*, many tribes

would become *savage*, and language would become *divided* into different dialects.

According to the Mosaic history, on the basis of which his lordship reasons, man descended, after the deluge, into an immense wilderness, in which the beasts would naturally multiply infinitely faster than the human race. Agriculture would, probably, from habit, and inclination, form the employment of Noah, and his immediate descendents. And in this occupation we find the first elements of civilized society, which we can trace, without interruption, from the countries in which they resided, and the period in which they lived, down to the present times.—But agriculture is too laborious an employment, and requires habits of life too regular to be agreeable to all men. Surrounded by forests filled with game, many would be inclined to abandon the toils of clearing and cultivating the ground, to seek their provision, and their pleasure, in the chase, which has ever been a favourite exercise of mankind. Judging from what we observe among the savages of this continent, and those Anglo-Americans who reside in their vicinity, their mode of procuring subsistence by hunting tends to disperse them widely from one another, and to distri-

bute them over immense tracts of country. Hence small independent tribes would in time spring up here and there through a boundless wilderness; they would forget all arts but that of hunting, and their mode of life would necessarily render them savage. —His lordship supposes that there exists an invincible objection against the dispersion of the primitive inhabitants of the world, and against the possibility of their degenerating into savage manners, in the example and advice of a venerable ancestor, and in the social disposition of man.—The example and advice of such an ancestor would doubtless possess great influence among that civilized people which would naturally be formed around the place of his immediate residence. But what power could they exert over his remote descendents who should live in a following age, or be ranging the forest at the distance of a thousand leagues?—In answer to this question he confidently pronounces, in contradiction to all experience, that mankind would never have separated from one another, and from the pleasures of that social intercourse which they would have enjoyed with their families and friends. Or if pleasure could not bind them, he imagines that fear would have restrained them.—“Men, says he, never de-

sert their connexions, nor their country without necessity : fear of enemies, and of wild beasts, as well as the attractions of society, are more than sufficient to restrain them from wandering : not to mention that savages are peculiarly fond of their natal soil.”

No man could have spoken in this manner who had ever been acquainted with human nature in its savage state. It is ridiculous to speak of the fear of wild beasts to hunters whose diversion it is to pursue and destroy them. And not much less absurd is it to speak of the attractions of society, and of exclusive attachments to a particular soil to men whose habitation is a wilderness,—to whom migration is a habit,—to whom every spot of earth is equal where they can find game,—and who feel the charms of society infinitely less than the pleasures of the chase. What are the attractions of society to rude unpolished savages? Destitute of the delicacy and refinement of sentiment which civilized manners create, and accustomed to the taciturnity induced by solitude, they are little more than the pleasure which dumb animals perceive at the approach of other animals of the same species. The chase, which is productive of higher and stronger emotions, easily breaks the feeble ties of such soci-

ety ; and hunters, like beasts of prey, delight in solitudes and deserts.—Men, in such a state, are seen to migrate to the greatest distances for the most trifling causes : sometimes from curiosity ; sometimes through mere caprice, and often for the convenience of hunting.

The influence upon the human mind, of a great extent of lands lying in common, and ready to be occupied by the first comer, is very visible in the effects produced by a similar situation on the inhabitants of many parts of the United States. Their fathers came from Europe with all those fixed habits, and those tendencies to local attachments which can reasonably be imputed to any people. They took possession of a boundless and unappropriated forest, in which they might choose almost at pleasure, where to reside : a circumstance which has produced a speedy, and astonishing effect upon the manners of their descendents. The Anglo-Americans discover comparatively little attachment to a *natal soil*. No hereditary possessions, no objects of antiquity, seize the imagination, and identify themselves with the endearing idea of family. The people migrate from place to place, and often to the greatest distances, without reluctance. They

change their habitations, retire from the midst of their friends, and abandon their *natal soil*, often for apparently small conveniences. Near the sea coast, indeed, and in our oldest towns, the long residence of families is beginning to produce its natural effect upon the mind, a greater attachment to ancestral seats ; but passing westward, as the settlements become more recent, these attachments are seen to be more feeble, till, at last, as we approach the vicinity of the indian tribes, they are next to nothing ; and similarity of situation, begets a great approximation of manners between the posterity of Europeans, and the aboriginal savages of the country, If his lordship had seen America, he might have seen men forever migrating from the midst of society to uncultivated deserts ; and, as society gradually advances upon them from the sea-coast, he might have seen them again retiring before it still farther into the depths of the wilderness ; he might have seen men decline the labours of agriculture as a toil, and prefer the fatigues, with the precariousness of hunting to all the advantages to be derived from the arts ; he might have seen that mankind often find *charms* in the indolence and independence of the savage state, superior to the *attractions of society*,

which must be connected with the labors of industry, and the sacrifices of subordination ; he might have seen our native indians, either singly, or in companies, travel for *many moons* successively, to explore other forests, and to seek for other rivers ; he might have seen whole tribes rise from their seats at once, and, carrying with them the bones of their fathers, seek new habitations at the distance of hundreds of leagues.—But his lordship has seen none of these things ; and he speaks of the savage state without understanding it, and of human nature in the beginning of time, without knowing how it has been affected, or what principles of action it has displayed in similar situations in later periods. Like many other philosophers, he judges and reasons concerning man only from what *he* has seen ; and is led to form wrong conclusions from his own prepossessions.

According to his principles a state of savagism never could have existed on the supposition of various original species of men, more than on that of one. “ Fear of wild beasts,” and “ the attractions of society,” would have held each race so closely connected together as to have “ prevented their dispersion.” Every art of agriculture would have

been tried before they would have extended their habitations into the *dangerous* wilderness. A civilized community would have risen round the dwelling of the progenitor of each race. And when they should have been compelled by necessity to enlarge their limits, they would have extended them in company. The forests would have fallen before them as they advanced ; and fear, and the social principle, would have equally contributed to restrain them from encountering the hazards, and risking the dispersions consequent upon indulging the spirit of the chace. The world, instead of being filled with numerous tribes of savages, would have every where presented to us civilized nations. His lordship, on this subject, constantly reasons against himself. He intends to combat the doctrine of a single species, from the existence of the savage state, which yet is a necessary consequence of that doctrine, and would certainly be precluded on his own principles.

Finally, his lordship “affirms,” that if all men had descended from one family “there never could have existed but one language, without the aid of a miracle,” which he only supposes in the case, with the insidious view of exposing it to derision. This is an

assertion which is certainly, not a little surprising in a great philosopher, who has undertaken to treat of human nature, and to present to us a philosophic history of man.—Similarity of language among all nations, diversified only by the various grades of improvement in science, and the arts, to which they should respectively have attained, would have been a natural consequence of the universal civilization of mankind continued down from a wise and virtuous father of the race, through all the branches of his posterity. Diversity of languages is an equally necessary consequence of the savagism of a great portion of the tribes of mankind, induced in the manner that has been already explained, and naturally arising out of the condition of the earth immediately after such a catastrophe as the universal deluge.—The reason of this will be obvious on a little reflection. The savage has comparatively few wants; and his state furnishing but few objects for the employment of language in his intercourse with other savages, the compass of discourse between them must be extremely limited. A savage is a taciturn animal. The paucity of his ideas, and the solitude in which he lives, incline him rarely to speak: and when he does speak, he is obliged, for

want of a sufficient copiousness of terms, to express himself chiefly in figures. This artifice the effect of necessity, abridges still more the sphere of language, by making the same term stand for various ideas, sensible, or mental, physical, or moral, according as the speaker finds resemblances or analogies between them. A swift man, is *a deer*,—a man of address is *a fox*,—a warrior of strength or courage is *a bear*.—The union and harmony of peace is expressed by *a chain*; and putting an end to the cruelties and distress of war, by *covering the tomahawk*, or *washing the bloody bed*. In this rude condition of mankind, the elements of speech must be extremely narrow. At the same time, among different tribes it must be very various. Each new region, each new climate into which they may be dispersed, will present to the senses many different objects, must create different wants, which will consequently require new terms by which to express them. Hence will result a diversity in the first elements of speech between various tribes.—If a few common terms should be transmitted from the primitive stock relative to the most familiar ideas, and objects of the first necessity, yet even these would undergo, in time, considerable modifications arising from the usual

causes which create a continual flux in all languages ; and many of them would be so changed from their original forms as hardly to be recognized to have been once the same, or sprung from the same roots. Language would become as various as the tribes of men. And as these tribes would advance in the cultivation of the arts, their respective languages would constantly exhibit still less resemblance to one another. They would commence the vast career of improvement, as we have seen, with few elements in common ; and even these few would soon undergo material changes. And in the infinite multitude of words which civilization, science, and the arts add to language, no two nations, perhaps, have ever agreed upon the same sounds to represent the same ideas.—In the progress of time, indeed, the superior refinement of one nation above its neighbours may induce them to adopt many of its terms along with its arts ; conquest may impose a language ; extension of empire may contribute to melt down different dialects into one mass ; but independent tribes naturally give rise to diversity of tongues.

Hence, although the speech of men was originally one, yet, as they separated themselves from one

another over the uncultivated face of the primitive world, and gave existence to various savage tribes, or tribes only in the first simple stages of society, they laid the foundation, at the same time, of an equal variety of dialects.—Every argument, therefore, employed by his lordship fails to support the superstructure which he attempts to rest upon it, and this last, which he deemed the strongest of all, instantly falls to pieces under a fair and critical examination.

Such is the attack which this celebrated philosopher has made on the doctrine of the identity of the human species. In all the writings of this author there is not another example of so much weak and inconclusive reasoning. This ought in justice to be imputed rather to the indefensible nature of the cause which he has undertaken to maintain, than to any defect of talents in the writer. For, to him I may apply the lines which, on another occasion, he applies to Dr. Robertson ;

Si Pergama dextrâ

Defendi possent, etiam hâc defensa fuissent.

ALPHABET

APPENDIX.

APPENDIX.

OF THE NATURAL BRAVERY AND FORTITUDE
OF THE AMERICAN INDIANS—OR THE HIS-
TORY OF THEIR MANNERS AS IT RELATES
TO THEIR MILITARY EXPEDITIONS, AND
THEIR CONDUCT TO THOSE WHO ARE TA-
KEN CAPTIVE IN WAR.

THE writers who subdivide the human race into various species have sought support for this opinion, among other arguments, from the great diversity of moral and intellectual powers and qualities which exist between various nations of the globe, and especially between the tribes of African and American savages, and the civilized inhabitants of Europe, or of Asia. Reasoning falaciously from false facts, they have endeavoured to establish such extreme and essential distinctions between them as can be the result only of some original and radical difference of nature. Mr. White has taken for his example the negroes of Africa, and Lord Kaims the indian aboriginals of North-America. The former I have already considered in my remarks on the discourses

of that writer. On the latter, which have been so often, and so egregiously misrepresented, I purpose in this appendix, to make a few observations.

Lord Kaims appeals to the modes of warfare in use among the American indians as indicating a degree of pusillanimity beyond the ordinary standard of human nature, which, in his opinion, ought to degrade them from the rank of men; and to the cruelty of the tortures inflicted on their prisoners, as well as their apathy in suffering, as demonstrating some principle in their constitutional organization which entirely discriminates them from the rest of mankind, and may be justly admitted as a sufficient ground to arrange them as a distinct species. His lordship appears to be very imperfectly informed in the genuine history of these tribes, and to have bestowed little reflection on the powerful influence of moral causes in forming the characters of nations. Both these phenomena which have induced him, together with many other European writers, to brand the natives of the new world with cowardice, and with almost incredible apathy of feeling, result from their state of society, and the peculiar situation of their small hordes, and from certain habits and opinions existing among them which have originated, in a

great measure, from the same causes. Some details in their history I shall now present to the reader relative to their modes of warfare, with their treatment of their captives, and the peculiar opinions, and circumstances in their state, which influence each, whence we may derive a philosophic solution of those extraordinary traits in their manners, which have given occasion to these unjust and odious imputations.

The aboriginal natives of North-America present to the philosopher some new and curious views of human nature which were wholly unknown to antiquity, and which even now, notwithstanding the extended improvements of modern times in geographical, and moral science, are not to be met with in any other portion of the globe. In tracing the origin of this people by the most probable conjectures, it has been generally agreed, that they are derived from the Tartar hordes dispersed along the north-eastern coasts of Asia. Here a barbarous people, impelled by accident, or attracted by the allurements of the chace, passing the narrow seas which, in this part, separate the two continents, soon forgot even the imperfect arts of Siberia and Kamtschatka, except those simple stratagems which were necessary

to take their game in the forest, or to draw the fish from the stream. In this rude condition they would be abandoned entirely to the unassisted efforts of nature, to be formed by the influences of a new climate, and by the wants, and the dangers of their new situation. In the milder and more fertile regions of the southern continent, which had derived their population, through several intermediate grades, from the more cultivated nations in the South of Asia, some advances towards improvement, and a civilized state of society, had been made. But these elementary operations in the arts had not yet extended to the tribes which lay above the thirtieth degree of northern latitude when the first adventurers from Europe reached the American shores. These still remained in the rudest condition of human nature. They were universally savage ; but they were savages of a temperate climate, and, therefore, not so utterly degenerate as those which are found under the latitudes of extreme heat, or extreme cold. The powers of life were not benumbed by the one, nor enfeebled by the other. A warm sun, and a luxuriant vegetation did not offer to the natural indolence of a savage the means of subsistence without the strenuous exertion of his own faculties ; nor did

the rigors of a frozen sky render those exertions entirely fruitless. The indian of North-America presents to us man completely savage, but obliged by the nature of the forest which he inhabits, and the variable temperature of the heaven under which he lives, as well as by the enemies with which he is surrounded, to employ both courage and address, for his subsistence, and defence. He is of savages, therefore, the most noble, in whom the unaided powers of human nature appear with greater dignity than among those rude tribes who either approach nearer to the equator, or are farther removed towards the poles.

It is not my object, at present, to pourtray the moral character of the American savage in all its relations; I shall contemplate it singly in his military operations and atchievements, as this is the principal point of view in which it is immediately related to my subject;* and is that, indeed, in which the

* This appendix is extracted from a larger dissertation entitled the history and philosophy of the manners of the American savage, which I have had it in contemplation to prepare as an addition to my lectures on Moral Philosophy in the college designed to exhibit the influence of various states of society on the human character.

peculiarities of this extraordinary race are chiefly displayed. Except hunting, which is the necessary means of their subsistence, war forms their favourite occupation, and to excel in it is their supreme ambition. In conducting it they exhibit the greatest address and enterprize, perseverance and fortitude. If the passions of such uncultivated minds are often atrocious, they sometimes display such heroic, and even sublime efforts of courage, and unconquerable firmness of soul, as justly excite our wonder, and command our admiration.

In treating this subject I shall consider, the causes, the conduct, and the consequences of their wars.

Wars, among them, most frequently arise from encroachments on their hunting grounds, or from contests concerning their limits. Although the idea of dividing land in private and individual property has never occurred to a savage, and is, indeed, resisted by all his habits, and his feelings of unrestrained liberty, yet their hunting grounds they regard as a national domain in which every huntsman and warrior feels the deepest interest, as it is the great field of his sports, and furnishes the only sources of his subsistence. He is vigilant, therefore, to observe

every transgression of its limits, and prompt to repel, or to punish every invasion of the national rights. But, as they have no arts by which these boundaries can be fixed with precision, and they must necessarily be left to be rudely marked by mountains and rivers, and by certain lines which, at different points, are indistinctly traced through the woods to connect these, they are liable to be frequently passed by foreign hunters who cannot be minutely acquainted with their course. The uncertainty of such lines, likewise, must often afford to neighbouring tribes pretexts for mutual invasions, or complaints. In the ardor of the chase, it is easy for young and impatient hunters to overleap those ill defined limits without any hostile design. But if they should happen to be met in this act of aggression by any of that nation who consider themselves possessed of the right of property, the intruders usually pay with their lives the forfeit of their rashness; or if the force on each side be nearly equal, their meeting issues in mortal conflict. If the aggression is not discovered and punished on the spot, as soon as it is known to the chiefs of the injured nation, they send a herald with a demand of satisfaction, or they encourage their young men to make reprisals on the

offending tribe, which inevitably kindles the rage of war for the diversion of hunting.

The wars of rude people often arise from the most trivial causes ; and not unfrequently it happens that parties of young hunters from different tribes meeting in the forest, and roused by that spirit of rivalry, and that pride of national achievement so natural to man, enter into contests of emulation. Contests, which, managed with their rough passions, easily degenerate into broils, that terminate in bloodshed. And the first blood which is spilled too often becomes the signal of general war. In these small tribes the persons who are slain are more nearly or remotely connected by the ties of blood with every family in the nation. Each man feels and resents the murder as a mortal injury aimed against himself : and the whole nation, with that spirit of clan which always pervades such narrow communities, are ready to rush to its revenge. Hostilities among savages are seldom waged through motives of ambition, which hardly can have any place in a state of society entirely destitute of wealth ; or from the cool dictates of a calculating and foreseeing policy, which would involve ideas too complex and refined for their uncultivated minds.

They are commonly the result of the sudden impulses of passion. Rude hunters, and young and mettlesome warriors, little acquainted with the restraints of government, and presumptuous from inexperience, impatient or incapable of the details of negotiation by which hostilities might be prevented; and wrongs compensated or redressed, are ever prompt to recur to force, and on the slightest provocation, make their appeal to arms. Their want of subordination to any civil authority, for no control which deserves that title is established among them, and their lofty sense of personal independence, frequently subject their national movements to violent convulsions. They possess no regularly organized bodies charged with the care of the common weal, who can coolly deliberate on the public interests, and preserve the nation from being committed, and its peace embroiled by the rash actions of their young warriors. Yet, when it is threatened with danger, their old men, whom age and experience have clothed, even among savages, with a certain degree of respect, convene and offer their counsels. To advise is all that is in their power; which, however, is not without its influence when the general inflammation is not already excited to too high a pitch;

Having no laws to punish crimes among themselves, still less does there exist any public law to repress, or to punish aggressions meditated, or committed against any foreign tribe. And when a young warrior, stimulated by his native courage, or burning with national emulation makes the first attack upon a neighbouring tribe, he relies securely on the protection of his own people. Their love of war, and ferocity of character, render them ever prompt to defend the indiscretions of courage. The sympathies of these savages are always in unison with violent and daring actions. Hence the multiplication, and the sanguinary complexion of their wars.

They do not, however, always precipitate themselves rashly, and without discernment, into every new war. When hostilities are threatened by some powerful tribe, the whole nation is assembled to deliberate on the expediency of taking up the tomahawk, and on the measures to be pursued in the present crisis. Here their old men give their sage and experienced advice, and their orators address them with an eloquence always highly figurative, and often noble and commanding. If the nation which is the object of their councils is nearly equal in force with themselves, their own courage, and sense of national

honor, and above all, the ardor of their youth, will commonly determine their ultimate resolutions in favor of war. And it is surprising with what sagacity and judicious discernment, the reasons on either side of the questions which are proposed to their deliberation, will often be estimated, and balanced by these savage senators. But if it be obvious that hostilities must be waged by them, at present, with great national disadvantage, the cooler counsels of age and experience will sometimes turn the scale to the side of peace. If this be the result, they hasten to send an embassy to the tribe with whom they were likely to be embroiled, and by gifts and concessions, endeavour to avert their fury. If nothing less will appease the vengeance of their enemies for some favourite warriors slain, than the blood of the murderers, this demand is followed by an example of retaliative justice the most extraordinary, perhaps, that the history of any people has recorded. They have no laws by which they can arrest, confine, or put to death, any member of their respective tribes. But the nation which is soliciting peace under these disadvantages, resolves, by a public decree, to abandon the victims which have been demanded, to the revenge of the offend-

ed party. And what is not less singular than this public abandonment, is the calm resignation with which those who are thus devoted await the execution prepared for them. Not an effort is made to resist, or to escape it. The warriors of the injured nation, deputed to inflict it, appear, and, without a murmur they offer their heads to the vengeful tomahawk, now the minister of peace; and the harmony of the two nations is cemented by the blood of the murderers.*

If a determination for war is the result of the national council, the resolution is received with a universal shout. They raise the war song,—they mingle in the war dance, which is a horrible imitation of all the most atrocious actions of their cruel warfare;—they run to prepare their weapons;—they send to invite their allies;—they paint their bodies, and especially their faces, with a variety of coarse, fantastic, colours and figures, which they suppose

* This resignation appears to be the result of a noble sentiment of patriotism to save their countrymen from the calamities which would otherwise fall upon them; or of a full conviction that, when abandoned by their tribe, it is no longer possible to escape the vengeance of their enemies: and, as they do not fear death, they would not seem to wish to delay it.

will be at once beautiful to their friends, and terrible to their enemies;—they equip themselves for the expedition;—they chuse a chieftain to conduct it. Frequently it happens that some noted warrior, confiding in the reputation which his past achievements have gained him, offers himself to be a leader, and is received with enthusiasm. When the election is to be made out of the mass of warriors, the choice is said to be, in many instances, determined by the physiognomy of the chief. For, savages not being accustomed to disguise their emotions, and leaving their features to be formed or modified by the natural and unconstrained sentiments and passions of the mind, often exhibit in their countenance a striking mirror of their character. His features should be fierce, his eye bold, and penetrating, his muscles strong, his limbs active, and his whole aspect and demeanor haughty and intrepid. A loud and terrible voice is, likewise, a great recommendation to a leader in their esteem as it was among the ancient Germans. For, in battle, he must endeavour by his shouts to rouse the courage of his own troops, and to terrify those of his enemy. The voice of the chief serves them, instead of trumpets, to sound the charge; and must often direct their

movements during the conflict. But the chief title to the public favor, in this moment of danger, is founded in his past exploits, and his distinguished exertions of intrepidity and skill in hunting or in war. Those heroes whose achievements the nation has often beheld and admired will commonly be followed by her warriors with the greatest confidence.

But as, in this state of society, no public obligation, more than private duty can be imposed by any law of the community, the actions of every member are unconstrained and voluntary, and depend in this case on the sympathy of the individual with the public spirit. The whole body of warriors therefore are not expected to follow the national chieftain; and many partizan corps are formed under separate leaders. A bold and intrepid chief presenting to them some point of attack which he is ambitious to assail, with the probable means of ensuring success, offers himself to conduct the enterprize; and marching forth from the midst of the assembly with a lofty step, strikes his tomahawk into the body of a tree. All those, who, admiring his courage, and confiding in his talents, are inclined to follow him, advance in the same manner and strike their hatchets under his into the same tree. This is their enlistment. It is

perfectly voluntary. A spirit of enterprize, and attachment to their leader are their only motives, and their only reward, besides glutting their vengeance, the applauses of their countrymen. No legal penalty could be inflicted on desertion. But after an indian has once fixed his tomahawk in the tree, to retract his engagement would brand him with indellible contempt and shame.

Sometimes a single warrior, to prove his prowess and address, or to satisfy his revenge for some friend slain, will undertake an expedition alone ; and, after marching over hundreds of leagues, and enduring almost incredible hardships, and spending weeks and months in this solitary warfare, he will return gratified if he has taken only a single scalp ; which is indeed, a difficult achievement against an enemy at once so brave, and so vigilant. But if he returns without this proof of his success, his courage or his dexterity is dishonored in the esteem of his nation. And, with them, it is nearly an equal disgrace to be deficient in stratagem as in bravery. If he brings home several of these barbarous trophies, it fixes his character as a brave and skilful warrior.

But, by following the principal chieftain, who conducts the national force, we shall gain a more

distinct view of the military genius of this extraordinary people.—Assembling his little army, he addresses them in a rude eloquence that is not destitute of energy and force. It glows with the warmest and the boldest figures, well calculated to inflame all their fierce and unrelenting passions. He reminds them of the injuries of their enemies—the broken chain of treaties—the bloody axe which has severed it—the unwashed bed of their slaughtered countrymen—their bones whitening on the hills that can never be gathered to their country burying place—the fires lighted up to torture their captive brothers. And when he perceives their passions kindling, when he hears their impatient shouts and sees their frantic gestures, he raises the song, and leads up the dance of war. This is the horrid prelude to their entering on their march.

One precaution in selecting their troops deserves to be remarked, as it is an evidence at once of their prudence in forming their military plans, and their resolute and determined spirit in executing them. A young man is not permitted to take arms along with the host, in any hazardous expedition, who has not given decisive proofs of his courage, and address in hunting, and of his patience in enduring

fatigue and pain, lest his weakness, or unskilfulness should bring dishonor on his nation.

In their march they observe nothing like the discipline that takes place in the armies of civilized nations. The chief enjoys no authority but what his reputation gives him. Confidence in his skill, and a sense of common interest and danger are the sole principles of union and order among them. He lays before his warriors his general plan, and the regulations he wishes to be observed in their advances towards the enemy. The rest is left to each man's judgment and discretion.

Their weapons, before the introduction of fire arms by the Europeans, were bows, arrows, spears, and clubs. Their spears and arrows were headed with the hardest bones taken from animals which they had slain in hunting; or with stones, of a fine and hard grain, nicely ground to a point, by a tedious and laborious friction. Their clubs were formed out of a weighty species of wood, having a large knob at the end most distant from the hand, which, on one side, was fashioned to an edge resembling that of an axe. With this, they could either knock down an enemy, or cleave his skull. In place of these clubs, they would frequently em-

ploy a hard kind of granite, moulded by extraordinary pains into the figure of an axe, except that, instead of the eye into which the handle is inserted, they worked out a small groove or channel round the upper part of the stone, about which they twisted a withe of some tough wood, whereby to connect it with the handle. This was an important instrument both in their domestic occupations, and in war; for, with it they, occasionally, either cut their fuel, or dispatched their enemy. But since their commerce, first with the Europeans, and, more recently, with the people of the United States, they have, in their wars generally substituted the musquet, or the rifle-barreled gun in the room of the spear and the bow. And, in place of the club they employ the tomahawk, which is a small axe formed at the poll like the head of a hammer. This they can throw to the distance of several yards with surprizing dexterity; and can cast it with such slight as, at pleasure, to strike their object either with the poll, or with the edge. In combat they use it either in hand, or at a distance: and, in both ways, they render it a very formidable weapon to an enemy. Besides these arms, they usually carry a long knife, suspended from the girdle, for the purpose of taking the scalps;

which are their trophies of victory from the enemies whom they may have slain in battle.

Thus accoutred, they take up their line of march, which is always in single file. They proceed, one following another, exactly in the same path; and each succeeding one preserves an interval of several paces between him and the warrior immediately before him. And this order they observe till they arrive so near their enemy that the continuance of it would expose them to danger, or betray their movements, when they separate, and direct their future progress in the manner which will be afterwards described. In their march they carry themselves in the most erect posture, casting a vigilant eye through the forest to discover any danger that may be lurking in ambuscade near them. The necessity of directing such constant vigilance to the objects around them, prevents them from regarding the small obstructions which must necessarily be in a path that passes entirely through a wild woods. Hence they contract a habit of raising their feet when they walk much higher than is customary among civilized nations. As they advance, they observe the most profound silence, unless some danger is suddenly discovered. When this happens it is in-

timated to the line by a peculiar kind of *hoot*, which it is impossible to describe, but which issues from the thorax by a sudden and violent compression of the muscles about the breast, and impinges forcibly upon the roof of the palate. The march is arrested. Every one looks out for the danger and puts himself in a posture of defence. If an enemy appears, prepared to give them battle, and not too powerful to be resisted, each one instantly betakes himself to the protection of a tree, or other fixed object, from behind which he can most securely annoy the foe, or defend himself. The party which is most powerful advances from tree to tree. The weaker retreats by the same degrees ; endeavouring, however, at the same time to bear off with them as many of their wounded, and even of their slain, as they are able to carry with them. In this they discover sentiments of sympathy and honor towards their friends who have fallen, which would entitle them to the highest praise in the most civilized nations. The victors scalp the dead, and put to death the wounded whom their friends have been obliged to abandon, and who are not able to travel at the pace with which they find it necessary to retreat. For even the victors are obliged to retreat ; otherwise

they would be exposed to be cut off by the whole force of the hostile nation which would be roused upon them in consequence of the alarm created by the return of their vanquished warriors. But both parties return only to prepare new expeditions.

If they meet with no such opposition in their route they march in one body only to a certain distance. As they have no means of laying up magazines, or transporting provisions for large bodies of men, they are obliged, before they enter on the territories of the enemy, to separate into small parties, both for the convenience of hunting, and for more effectually concealing their designs. They usually part under an agreement to meet at a preconcerted place in the vicinity of the town, or collection of wigwams which is the object of the expedition. This place they approach by various routes, with the utmost caution and secrecy; for if only one man be discovered the whole design is defeated. A small army can effect nothing against a nation apprized of its danger, in which every man is a warrior, and every warrior lives with his arms in his hands. And it is impossible by any address to conceal themselves when once the vigilance of their enemies is awakened. They are obliged to flee with the utmost precipita-

tion. To prevent a discovery so fatal to their designs, they make their approaches, when they have arrived near their object, only in the night. During the day they lie concealed in thickets, or behind the bodies of decayed timber, and often so covered with dry leaves that the place of their concealment differs nothing in its appearance from the ordinary surface of the forest. If they have occasion to make any movement in the day they will crawl, and frequently to the distance of miles, on their bellies, with the greatest perseverance and patience. When arrived, at length, at their preconcerted ground, here they arrange their ultimate plans for making the assault. For whole days will they sometimes lie concealed, with the most astonishing tolerance of hunger waiting the most favourable moment for the execution of their design. Of this the leader gives notice by runners, or by signals already agreed upon. It is commonly at night, when the townsmen are buried in their profoundest sleep ; unless, which sometimes is the case, they find a village in the day dissolved in ease, or in pleasure, and wholly off their guard. Then follows a horrid scene of carnage and butchery, in which is displayed all the ferocity of savage passions in their most

direful forms. All at once, they spring from their coverts, and rush into the town which is defended by no ramparts, and watched by no guards. Some, bearing flaming brands in their hands, fire the huts in various directions. Others burst open the ill barred doors with hideous yells, and attack the wretched inhabitants just waking from sleep and confounded with these frightful and diabolical sounds. At this moment little use is made of their fire arms. They rely chiefly on the murderous tomahawk. They sink it into the skulls of the defenceless, and mangle the limbs of those who attempt to make any resistance. Men, women, and children share the same fate, and are slaughtered without distinction. At length, some of the wretched victims, escaping from their burning habitations, maintain a desperate conflict with the victors in the area before their doors. Despair augments their force. With the fury of demons they rush upon their conquerors. They conflict,—they mingle their tomahawks, with most frightful yells and screeches : all is despair, and rage ; and, the flaming town shedding a dismal light upon this scene of darkness and horror, resembles what our imaginations have pictured most dreadful in

hell.* Tired at last with carnage, and meeting with no more resistance, the conquerors condescend to make prisoners of the few that remain. As soon as their work of death is done, they hasten to return to their own country. They delay no longer than till the victorious chief cuts, or paints on the handle of a tomahawk, which he leaves stuck in the body of a tree, or on the tree itself, some rude emblems of his success. An oval figure serves to represent the leader, in which are stained such characteristic marks as may indicate to his enemies who is the hero who has taken such vengeance on them. Some symbols he adds expressive of the nation to which he belongs. After these, very coarsely drawn figures of men, or simply erect lines, point out the number of his warriors, and horizontal lines the number of the slain. These, or similar symbols left upon the spot form the rude record of his glory. Here we discern the origin of trophies erected on the field of action. We perceive also, how naturally mankind have recourse to hieroglyphic images or

* This description is taken from an account of the sack of a town of the Hurons.

characters to express their thoughts before they are acquainted with alphabetical writing.

This finished, they commence their retreat, which is always executed with the greatest rapidity. For they are sure of being immediately pursued with a superior force by the enraged nation ; and they have no means of securing themselves by fortifications, or waiting for succours from their own tribe. And it is the glory of the victor to retire with such speed as to preserve his prisoners and to save his own men from reprisals by the enemy. They hardly eat or sleep till they have reached their own territories. And even then, if they remit their pace while they are yet near the frontier, they are liable to be overtaken, and cut off by a foe burning with revenge. During these movements their captives are guarded with the utmost vigilance. And if any of them, either through fatigue, or by their wounds, are rendered unable to keep pace with them in the rapidity of their course, they are, with unrelenting barbarity, instantly dispatched.

When at last they have gained their own villages, they are every where received with shouts of triumph, with frantic dances, and the most flattering testimonies of the applause of their countrymen.

THE prisoners experience the most opposite fates. Some, with strange contradiction to all the ideas and customs of civilized nations, are adopted into various families, and, from enemies, become, at once, fathers, brothers, husbands, sons, and enter into all the nearest relations of life. Others are reserved for the utmost extremities of torture which ingenuity can invent, and cruelty can inflict. A few whom they despise too much either to adopt, or to torment, are reduced to slavery to assist their women in those labors of drudgery to which the sex is destined by the customs of savage life.

But, before such distribution is made, they undergo a severe and extraordinary kind of discipline in every village through which they pass after they enter into the territories of their conquerors, or of their allies. Each village consists of a double line of huts extended along a single street. At the end of the street the prisoners are collected in order to run a most teasing and distressing kind of gauntlet, between two rows of young men who are ranged for the purpose along either side, and are armed with sticks, and stones, and hard balls composed of gravel and clay. With these the unhappy runners are bruised and beaten in a miserable manner.

But, before these races are begun, which afford a barbarous sport to their youth, and even to their children, who are permitted to mingle in the amusement, to accustom their minds betimes to acts of ferocity, frequently it happens that women, or old men who have lost their nearest relations by disease, or by war, and who now feel the want of their assistance in their domestic occupations, will select a part of the prisoners whom they resolve to adopt in the room of the deceased. This act, apparently so contradictory to the natural ferocity of savage passions, however surprising it may seem, appears to be very sincerely entered into by both parties, and immediately puts an end to all further injury towards the captive. The adopted enemy is received as a countryman and kinsman; and they transfer to him all the rights, and good offices to which the dead was entitled. The rest are obliged to course it through their cruel gauntlet. If, in the progress of the race, some bruised and beaten victim of their sport, discouraged with the frequency and violence of the blows which he receives, breaks through the line of his persecutors, and endeavours to seek a shelter in some cabin, the females of the family will frequently interpose to skreen him from further suf-

ferings. It depends on the accidental influence of his protectors with those who enter their cabin, whether their kindness is able to defend him, or he is to be dragged forth with increased fury to run the remainder of his course. If any woman adopts him on the spot, which is not an unusual thing, this effectually arrests all further persecution, and he is received as a member of the family. The circumstance most astonishing in these adoptions, but which is as well attested as any in their history, is the mutual transfer which is made of duties and affections. The enemy is treated as a friend and he, on his part, seldom fails to make a suitable return. With a facility that surprises us he enters into the sentiments which belong to his new relations. He never attempts to return to his native country ; they never distrust his fidelity.

Every prisoner who does not receive the privilege of adoption, or who scorns it, as those commonly do who value themselves upon being distinguished warriors, is destined to suffer death in its most frightful forms. Before his sentence, however, is intimated to him, he is, by one of those strange contradictions so often exhibited in the savage character, treated with every appearance of kindness,

and humanity. He receives the appellation of brother ; he is supplied with food, and lodged in the same manner with themselves. What is not less strange than their kindness is his indifference. He eats, and drinks, and sleeps with the same tranquillity as if he were in the midst of his friends. Always taciturn, indeed, according to the character of a savage, but always composed.—At length a warrior arrives who informs him that his fate is decided, and his funeral pile is ready. He makes no other reply, but a certain kind of guttural and forcible sound, which, among them, signifies—*Well!* and marches with an elevated and sullen air towards the place of his execution. Here he sees a huge pile of wood to which fire is applied, and near it a tree to which he is to be bound. No sooner does he see the flame, and his enemies shouting and dancing round it, than he raises his death song. Sometimes he is bound close to the trunk of the tree,—at other times the cord is so fastened as to afford him a certain range, in which case he courses round the circle prescribed to him chanting his lugubrious notes during the whole of his torture, or as long as his strength will enable him to utter a voice. The fire is not intended to consume him

speedily, but is only applied so as to aggravate his torments, and, by their tediousness, to weaken, if possible, the firmness of his mind. Sometimes the signal for torture is given by an enraged woman who has lost a husband, or a son in the late battle, rushing upon him with a flaming brand, gashing him with a scalping knife, or striking him with a club. In an instant all follow the example, shouting, and leaping round their victim like infernal furies. For torture is the sport of savage minds, and in no amusements do they feel their spirits more elated. Some mangle his limbs,—others stick his body full of splinters of some pitchy wood, which, lighted at one end, and burning slowly to the other which is inserted in his flesh, inflict a most exquisite pain. Some amuse themselves by piercing beneath the nails with these splinters, and setting them on fire; while others, more furious, endeavour to increase his anguish to the highest pitch of suffering by tearing his sinews from his bones. Every one is eager to bear a part in this scene of horror. The women, at other times surpassing the men in facility of nature, and kindness to the unfortunate, are often foremost in these cruel and vengeful sports. And even the children are here trained like hounds to the scent of

human blood, and are taught to steel their hearts against commiseration.

Such is the force of education, and of habit united with the elevation of mind produced by martial pride, that a distinguished warrior never shrinks from the severity of these torments, or suffers himself to express the smallest complaint. On the other hand, he glories in sustaining them with a high, unbroken spirit, and making his enemies sensible of the impotence of their rage. He continues his death song, and now and then interrupts it only to insult them. He calls them women; tells them they are unacquainted with the arts of torture which he has often practised on their friends, and boasts that they are unable to subdue the firmness of a warrior of his nation. He irritates them by recounting the numbers of their countrymen he has slain; and, by every species of provocation, endeavours to incite them to some rash effort of their fury which will shorten his sufferings. It is only the fear of abridging the period of their diabolical revenge which imposes any restraint upon their rage. An old Onondago chief, who was taken by the Hurons, provoked in this manner, a young warrior to give him three stabs with a knife. "Thou shouldst

not," said the old man to him calmly, "thou shouldst not be too furious ;—thou wilt spoil thy revenge, and not have time to learn to die like a man."

Many such anecdotes are related of their last moments. Sometimes savage ingenuity protracts these scenes of torture during several days. But, whether continued for a longer or a shorter period, they are equally incapable of wearing out the patience, or subduing the haughty spirit of a noted chief. He insults his persecutors—he sings his mournful song, till nature being at length entirely exhausted, he sinks down without a groan, apparently more satisfied at having braved his enemies, than afflicted at the loss of life. Their revenge and hatred prompt them to make him express some complaint, if possible, under the anguish of his sufferings. He places his honor in being superior to them. They strive to subdue his pride, he derives a pleasure from making them feel his contempt. Their vengeance would enjoy a triumph if they could reduce a warrior of a rival nation to utter a groan, he glories in shewing them that a warrior of his nation can never be subdued by pain.—Sometimes it happens that a prisoner of the lower class is overcome by the extremity of his sufferings, and

trembles at death surrounded by so many terrors. This never raises the compassion, but always the contempt of these hardy savages ; and some haughty and furious chief dispatches him at a blow, as unworthy of being treated like a man.

FROM the preceeding details of the military character and habits of the American savage several important enquiries arise the solution of which will tend to throw light on the philosophy and human nature, and particularly to obviate those objections which have been made by some respectable writers to the identity of species in them, and in the polished Europeans.—1. To what principle are we to ascribe that concealed mode of fighting, and those approaches made by stealth to the object of their attack which, from their opposition to the customs of all civilized nations, and the manner in which true bravery is expressed among them, has produced against the American the charge of extreme and unmanly pusillanimity ? Is this an indication of a total destitution of courage ? or is it only a different mode of exerting a principle which conspicuously belongs to human nature in every region of the globe ?—2. How

shall we reconcile the facility with which adoptions are often made and received among their prisoners of war, with the ferocity of their passions, and the exterminating spirit of their hostilities? Are their moral and domestic affections entirely different from those of all civilized people? Or, are these apparent contradictions in their character to be explained only on the supposition of a radical difference of nature?—3. In what way shall we account for that atrocious barbarity in torture which seems to have not one sentiment of compassion mingled with it in the breasts of a people who, on other occasions, are not devoid of the feelings of humanity?—4. Finally, what name shall we give to that astonishing tolerance of pain with which they endure the most cruel tortures? Is it magnanimity? Or is it defect of natural sensibility?

The various and variable character of man will ever be, in a great measure, formed by the situation and circumstances in which he is placed: and the same original principles are capable of being moulded, by these circumstances, into an infinite diversity of forms. Apply this reflection to the military habits of our American indians, and so far will they be found from indicating that natural cow-

ardice and pusillanimity which has been erroneously imputed to them, that they will appear to be the almost necessary result of the nature of their country, of their political state, and their total want of improvement in the arts.—The defences and stratagems of war in civilized nations are always relative to the progress and improvement of society and the arts among them, and to the nature and position of their respective countries. The bravest armies cover themselves by fortifications, and take advantage of high grounds, of ravines, of villages, or thickets for their defence; a Roman fought from behind his shield, and all employ numerous stratagems in war for the purpose of concealment, or deception. Is it more dishonorable in a savage to employ, in his marches and attacks, the cunning which nature has given him, and, in battle, the simple defences which nature affords him? Savages have not either the means or the skill to construct fortifications, or to establish magazines of provisions for the purposes of conquests, or to facilitate the march of armies. In a country, therefore, overgrown with forests they are necessarily obliged to prosecute their wars in small parties, both for the purpose of obtaining provision on their route, and for more effectually concealing

their numbers, and the object of their expedition. Advancing in this manner into the territories of an enemy, a mode of warfare which the nature of their country, and their imperfect progress in society and the arts, compels them to adopt, they are exposed to certain destruction unless they can cover their movements with perfect secrecy. Shall we then, with so many European writers, impeach their courage because they conceal their motions with such address and care, or because, when engaged in action, they fight from behind trees, or other objects of protection? They gave a dreadful refutation of this error when a few hundreds of these untutored and despised savages entirely routed a British army, conducted, in all the pride of military discipline, by one of the bravest of the British generals.* No, these are only the first rude arts of attack and defence pointed out by nature to the uncultivated genius of the savage. If these arts are carried to greater perfection by the improvement of civilized nations, the principle on which they are employed, by the one and by the other is the same. It would not be courage but madness in them to abandon their

* General Braddock.

natural defences, and with Quixotic errantry to challenge their enemies to combat in the open plain, where both must be uselessly destroyed for a point of honor which a savage could never comprehend. Considering the smallness of their population, and the value of the life of each warrior to the nation, it is as much the glory of a chief, by a skilful conduct, to save his troops, as to conquer his enemies.

The next enquiry is, perhaps, more difficult to be resolved, and seems to furnish a more striking contradiction to the principles of human nature as they appear among civilized nations. To what motive are we to ascribe the facility with which adoptions are made and accepted among these ferocious people, immediately after being engaged in acts of the most inveterate hostility? How shall we reconcile these effusions of kindness with the atrocity of their other passions and the scenes of extreme barbarity acted on the countrymen and fellow prisoners of the adopted?

Some writers have supposed that the necessity of saving from utter extinction their small tribes wasted by continual wars, has given rise, from political motives to these adoptions, and that custom has now confirmed the practice. But this is a plan of

conduct much too cool and artificial for men in that imperfect state of society. It is making savages, who feel the ties of society very feebly, and the impulses of passion in their utmost force, act more as citizens than as men. Besides, they are the women chiefly who enjoy the privilege of protecting prisoners by adoption; and to ascribe to them such motives would be to make policy prevail over nature in their hearts. We might rather arrange nature against nature, and suppose that the softness of that sex, more prone to compassion than men, only yielded to the natural impulses of kindness in their own breasts when they rescued an unhappy victim from torture. But another fact equally characteristic of the sex seems to stand in opposition to this. Their weakness inclines them more to cruelty than men, and even the sensibility of their hearts, and the irritability of their feelings render them much more bitter and atrocious in their revenge. For this reason, the warriors frequently resign a prisoner, who has been destined to the flames, to some woman who has lost a husband, or a son in the late actions, that she may appease her grief by venting upon him all the vengeance of her heart. She leads the way, she sets the example, she incites the ac-

tors in all the torments he is made to suffer. Her rage makes her ingenious in inventing new modes of torture.

It is true that women, in different situations, are equally prone to kindness and to cruelty. And from the influence of these principles we derive in part at least, the causes of two moral phenomena so contradictory, and apparently so irreconcilable. Those whose hearts are sore from the recent loss of their friends, irritated almost to madness, set no bounds to their fury. Those, on the other hand, in whose breasts the edge of grief has been blunted by time, and the first transports of revenge have subsided, regaining the softness natural to the sex, more easily admit the returning sentiments of humanity.

But there are other motives which govern them in this extraordinary act. A woman who has lost a husband, in that rude condition of society where no artificial ties exist to attach her forever to his memory, and no delicacies of sentiment and of manners, created by the state of the public morals, check her desires of a new connexion, finds, at length, the emotions of grief subside, and give way to the demands of nature.

This transition is greatly aided by the peculiarly hard condition of women, and of aged men in the savage state, when bereft of their husbands, or their sons, who might supply their most urgent wants by furnishing them with game. They cannot, as in civilized society, exchange the products of their industry for the means of subsistence. And the indolence of the savage, hardly providing for himself, during a great portion of the year, the necessaries of life, has no stores whence even charity could supply the wants of others. Wretched, then, is the condition of those widowed females, or unfortunate old men who have no vigorous and active huntsmen on whom they can depend for a sustenance which can be drawn only from the chase. To these hardships we may add that their tribes, wasted by continual wars, scarcely afford husbands to their young women; their widows, therefore, and older women, must often be left through necessity to seek a husband or a son from among the number of captives who have been taken in war. The inclination, likewise, to renew a connexion in which they have been more happy, may frequently prompt their younger widows, who, in that state of society, are little re-

strained by sentiments of delicacy, to solicit an alliance among the prisoners which they cannot find among their own countrymen.*

On the other hand, aged women, or aged men, who have lost a son that promised to be the stay of their declining years, not only require one who will supply them with provision, but one who will incorporate himself with their family by the closest ties of relationship. Savages as they are, they have the feelings of human nature. And as families, in that state of society, are usually small and it frequently happens that the loss of one son is the loss of their all, they need an object to fill the vacancy in their hearts, upon which their affections may, in some degree, repose. It is especially necessary in very advanced age, the imbecility of which requires more than ever such a consolation and support. Not being able always to find it home amidst a wasted population, they are willing to take it even

* Nor is this so indelicate and abhorrent from nature in these savages, as it is in some modern queens and princesses to elevate common soldiers from their guards to be their paramours and ministers of state. The chief difference between them is, that the latter, by their rank, have raised themselves above the laws of delicacy, the former have never understood them.

from enemies whom the fortune of war has thrown into a situation to become useful to them, and even, as we shall presently see, to become friends. Such unions are formed with much greater facility between different savage tribes than among nations who have made greater advances in civilization. Between the latter so many differences exist in character, in manners, and language, that they often become fruitful sources of mutual prejudices, and deep rooted antipathies. But among the neighbouring tribes of American savages there exists such similarity of habits, of aspect, of manners, and even of language, as greatly facilitates the mutual transfer of duties, first, and afterwards of affections. The adopted are immediately acknowledged by the whole nation as countrymen and brothers. For personal independence among them is so complete, and individual and national rights so equal and perfect, that the community never thinks of questioning what any member has done, but the act of one is recognized by all.

Not less difficult to be understood by a civilized people than the act of adoption is the acquiescence of the prisoner. How does he reconcile himself to a situation, and to connexions so novel? Why does

he never attempt to escape from the midst of strangers, and return to his native tribe? How can he so easily relinquish old, and enter with cordiality into new relations? To explain this phenomenon so extraordinary in itself, and so widely different from what is ever seen to take place among people of cultivated manners, it is necessary to recur to those national habits and ideas which prevail among the American savages, and have origin their chiefly in their state of society, and the nature of the country. Possessing none of the agricultural or liberal arts, and under the necessity, in consequence, of drawing their subsistence chiefly from the forest; exposed, besides, to perpetual hostilities, and liable, if they should be taken captive, to suffer the most atrocious barbarities from the fierce passions of men who have never been softened by culture, the whole education of our native indian consists in being trained to hunt with dexterity,—to make war with courage and address;—and to endure pain with unconquerable patience. The first point of honor in an indian hero is to kill his enemy, but, if he is taken prisoner, the next, and perhaps not less esteemed, is suffering the extremities of torture without shrinking, or seeming to feel them. As this is so

high a proof of genuine heroism, and so essentially belongs to the honor of a warrior, a great chief is always prepared to give that testimony of devotion to his nation : he would refuse adoption as a dishonourable condition. By a national sentiment, therefore, or a kind of unwritten public law, all prisoners are held to be dead by these savages, because they ought to die. Those who accept of life among another tribe are hated and despised by their countrymen. It is a violation of their allegiance, which is a natural claim that every national community seems to possess and assert over all its members. They dishonour their tribes, and would most probably be put to death as enemies, if they should attempt to return. The adopted, on the other hand, are, on account of their utility, caressed and comforted by their recent connexions ; they receive the mark of their new nation imprinted on their skin which is a barrier of eternal separation from their former friends.* Their inducements, therefore, are much stronger to remain in the society of their

* Each nation has some peculiar symbolic character, as each chief has some personal distinction impressed upon the person. It is inserted by punctures, in the substance of the skin, and indelibly stained by the discolouring juice of certain vegetables.

reconciled conquerors, than to return to the contempt and hatred of their alienated countrymen.

There are many circumstances besides which render the relinquishing of his native region a much less sacrifice to the savage, than to the citizen. The latter is attached to his country by property, by artificial wants which render that property necessary to his comfortable subsistence, by habits which attach him to the manners and customs of his own people, by fixed residence which connects his happiness intimately with the scenes wherewith he has been long conversant, and even the spot of earth which has been identified in his imagination with all his early pleasures, by a long dependence upon parents, and by a thousand nameless ties and charms of society. Whereas a savage can hardly be said to have a country. Accustomed to roam over hundreds of leagues in quest of prey, he is exclusively connected with no region, he is attached to no spot. Even whole tribes rising at once from their habitations and carrying with them the bones of their fathers, will often seek new forests, and new skies, for the convenience of hunting. Every place is the country of a savage where he can find game. His bow is his property. He has no wants which this cannot

supply. Society can have few attractions to a savage who is a solitary and silent being. His patriotism is not that fine and complicated sentiment which makes the name of *country* so dear to the citizen of a polished nation ; it resembles more the tie which binds robbers together, and which is dissolved, when the gang is broken. So many circumstances concur in explaining the conduct of the adopted captive on the ordinary principles of human nature ; so little reason have we to recur continually, with certain philosophers to *specific differences* in order to account for varieties of character among different nations which, when fairly examined, are found to be the result only of moral, or of physical causes.

The next enquiry was, to what principle are we to ascribe that atrocious barbarity in torture exercised upon their prisoners, which seems to have not one sentiment of humanity mingled with it in the breast of a people who, on other occasions, are not destitute of the emotions of kindness ?

We must look for the origin of this, as of most of the other distinctive traits of their moral character, in their rude and unformed state of society, which tends to extinguish all the sympathies of human nature, when their passions are inflamed by the rage

of war. Refined and polished nations correct the extreme violence of the passions by the improvements of reason. The education of a savage is intended not to correct, but to give full and unrestrained scope to them. It is not surprizing then that their vengeful passions, which are always among the strongest impulses of uncultivated minds, should be extreme in their effects. Feuds even among themselves, are all mortal. They are not constrained to act with moderation through any apprehension of the power or control of laws—their only law is their own will; and this is often dictated by their revenge, and is always ready to be defended by their courage. But against their public enemies, rage, which is the predominant passion in the breast of a savage, acts with ungovernable and exterminating fury. In war their object is not conquest but destruction. And, as every warrior expects, if he should fall into the power of his enemies, to be put to death by the most cruel tortures, he is prepared, by anticipation, to retaliate this mortal injury upon his unfortunate captives. Great and polished nations fight to augment their power: they conquer, therefore, to preserve. Their armies combat for glory, not for revenge: their opera-

tions, consequently, guided by a cool policy, are never actuated by those furious, and deadly passions which inflame barbarian soldiers, and savage warriors. Bearing but a small proportion to the population of the country, the nation is but little affected by the individual fate of those who fall in battle. And armies are so constituted, that the loss of thousands of the common soldiery possesses but small interest in the sympathies of that class of society which chiefly influences the public measures, and gives the tone to the public feeling. If a few of better rank are slain in the field, their friends are consoled by the glory of their fall. But, among the savages of America, the same men who fight, decide the fate of the prisoners, and they do it with the same passions with which they fought. They have no reasons of state, which induce nations to make war without passion. Their wars are the consequences of recent injuries keenly felt. Their armies, although small, bear a large proportion to their entire population. Every warrior stands in some relation of kindred to his whole tribe. And all who are slain in battle are lamented as brothers. No artificial sentiments of glory serve to console the survivors : and they study only to quench their griefs, and their re-

venge in the blood of their enemies. In the tortures they are preparing for their miserable victims, they see only the gratification of their own vengeance, and the torments which would have been destined for themselves if the chance of battle had thrown them into the hands of their prisoners. This reflection serves to inflame their rage ; and their mutual instigations when assembled round this horrid sacrifice, to avenge their slaughtered brothers, and their own meditated injuries, excite their passions to the wildest fury. They make a festival of cruelty. In the midst of shouts and yells, and those wild and frantic gestures by which they express, at once, their exultation, and their rage, every emotion of humanity and sympathy, if it should happen to rise in their breasts, is effectually extinguished. There is, indeed, a kind of wantonness in cruelty which forms a part of the character of the American savage, that resembles the pleasure which badly educated children are often seen to take in the writhings and convulsions of the inferior animals subjected to their persecutions and torments. A savage is, in many respects, little more than a grown child. But in the moment of victory and triumph, in their barbarous carousals, and the wild frolic of all their

spirits and their passions, they are still more cruel and unreflecting than on other occasions, and derive a more horrible diversion from the miseries of their captives.

But sympathy is a sentiment which is scarcely understood by hardy and savage warriors, who neither exercise nor claim it. Exposed to continual hazards, and fatigues, and frequently, to the extremes of want and suffering, they are accustomed to brave danger with firmness, and to endure pain without complaining. Loosely connected in society, every man depends upon himself in the most hazardous or most unfortunate conjunctures of affairs. Equal to his situation, by courage or by patience, he makes no demand upon the pity of others, and does not understand how they should have any claim upon him.

The rudeness of his condition imparts the same coarseness to his mind as to the fibres of his body. The Goths estimated the injury done to a woman in the most delicate situations by the largeness of the wound. The savages of America, still more rude, and conversing only with the wildest scenes of nature, know nothing of those finer feelings of the heart, and that soft interchange of affections which

give birth to the sentiments of compassion and sympathy. Our law excludes butchers from giving a verdict in cases of life and death, because, by seeing and inflicting death on other animals, they are supposed not to possess a sufficient value for the life of man to render them mild and humane judges. Much more will those eternal scenes of blood in which the savage is engaged either in hunting or in war, blunt all those finer sensibilities of the heart of which unadulterated nature would otherwise be susceptible, and which might contribute, in some measure, to restrain the ferocity of their vengeance.

Having laid open some of the principal causes of that extreme barbarity with which the savages of America treat their prisoners whom they have doomed to death, it is not less curious and important to the philosophy of human nature to examine into the principles of that astonishing patience which they exhibit in the midst of the most excruciating sufferings. Is it magnanimity? Or is it want of feeling? Does it arise from the influence of climate? Or is it the result of ideas created by their state of society, and their habits of life? Or finally, must we search for it, with Lord Kaims and

other kindred philosophers, in some original and specific difference of nature from other men?

Writers of no inconsiderable eminence have ascribed the tolerance of pain by the American savage to the humidity of the atmosphere in the new world, recently redeemed, as they suppose, from the ocean, and abounding in marshes. Hence they have gratuitously inferred that the sensibility of the natives of this continent both corporeal and mental, is impaired by the influence of their climate. But, do we find this reason verified by the experience of other portions of the globe? Are the people who happen to be posited on the borders of lakes, or in the neighbourhood of fens, less sensible to pain than others? Does a Hollander possess greater fortitude than a German? Or is his sensibility to suffering less keen? If such effects are produced by a relaxed fibre in the American savage, and it is found to diminish to such a degree, the irritability of the system, should we not equally expect to find him patient of affronts, languid in his resentments, tardy in his revenge?

The true explanation of this phenomenon we shall probably discern, not in the physical constitution of America, but among those moral causes which are

so often overlooked in the philosophy of human nature.

No person who reflects deeply on the principles of action in man but must easily be persuaded that active courage in encountering, and intrepid firmness in repelling danger, or that inflexible patience and fortitude in bearing up under calamity and suffering, are more frequently the result of the sentiments of the mind than of the physical force of the animal constitution. And it depends on the education of men, and the situations into which they are thrown, whether one or other of these characters be chiefly drawn forth, and called into action. It was not physical temperament, but education which enabled the youth of Sparta to endure the deprivations which were required of them by the discipline of Lycurgus, or suffer without complaining the lacerations with which they were exercised at the shrine of Diana. In that country, at present, where a sublime education had once rendered children more than men, do we not, by a change of manners, see men become less than children? It is sentiment which creates heroes in action or in suffering. Hatred and vengeance against his enemies, and the pride of defying their rage, are sentiments inculcated into the heart

of an American savage from his earliest years. From his infancy he is taught that his own glory as a warrior, and a chief, and that of the tribe to which he belongs are involved in the heroism with which he combats, or, if he is vanquished in battle, in the magnanimity with which he suffers. His whole soul is occupied with these ideas, and these passions.

Without doubt their patience under tortures must be greatly assisted by their habits of life, and the constant hardships of their state. That the power of enduring pain with firmness may be acquired by the influence of education, and habit, we have a practical demonstration in the manners of the Lacedemonians. And the stoic school has afforded a high example of the force of their philosophy in subduing the fear, and even the sense of suffering. Although the mind of the American indian is not cultivated by any philosophic system, he derives the same firmness and strength of character from his state. Inured from infancy to fatigues, to wants, to dangers, and conversant only with ideas of active, or of suffering heroism, he has learned more in the hard school of necessity than, probably, he could ever have acquired under the voluntary discipline of Zeno or Lycurgus.

The Spartan boy, who had taken a fox from a neighbouring inclosure, was enabled, by the force of his discipline, to endure, without discovering his pain, the animal gnawing into his vitals rather than expose himself to the infamy of detection, and expired without a groan. And a savage warrior will suffer his enemies to rend his sinews, to burn his flesh, to rip off his nails, and to plunge the fiery stake into his bowels, without giving them the satisfaction of being able to extort from him a complaint. He glories in conquering their perseverance by his patience. But shall we, with the philosophers whom I combat, look for the cause of this astonishing constancy in the humidity of the climate, or in some specific organization of the corporeal system, and not rather in the almost omnipotent force of sentiment?

It was a maxim with that philosophic and austere sect, who have just been mentioned, that pain is no evil: and certain it is, that it derives its chief power over man from the weakness of the mind. An energetic *will*, created by sublime sentiments, by strong passions, or even induced by the habit of conflicting with dangers and sufferings, imparts to the soul a strength which suspends, in a

great measure, the sensation of pain, and wholly deprives it of those additional terrors with which a timid imagination invests it.

Our savages understanding the hardships of their own lot, and foreseeing the trials to which their fortitude may probably be exposed by the chances of war, make it a principal object of their early discipline to inure their youth to fatigue, and sufferings, and deprivations of every kind. Even their amusements partake of the same intention. Among all nations, their customary diversions are relative to their manners. In the warlike ages of Greece and Rome the amusements of those martial people consisted in leaping, running, wrestling, and throwing the discus, or the spear, to fit them for the combat. After the model of nature, likewise, the American indians have drawn their amusements from their state, and make diversions themselves prepare them for suffering. Besides shooting the arrow, and throwing the tomahawk to qualify them for the active operations of hunting, and of war, their children frame diverting subjects of contest with one another, in trying who shall endure the deepest punctures, or the hardest blows without complaining; or who shall hold a burning brand in their hands with

the most persevering steadiness, and for the longest time. Sometimes they single out objects of their rude wit upon whom to try the force of their ridicule, who are forever disgraced if they discover any temper or impatience under all the jests and teazings of their companions. Thus do they prepare themselves, by continual exertions of patience, even in their sports, for that last and great trial of it, when they shall be called to endure the most cruel tortures of enraged enemies, and to suffer from them every species of insult and contempt, often more difficult to be borne than tortures.

Their religious ideas contribute also, in some degree, to sustain that amazing fortitude, and patience in enduring torture which is one of the principal distinctions of their race. It is not my intention to enter into any extensive delineation of their system of superstition: but only to suggest a single reflection as it is relative to their extraordinary fortitude in death.—Virtue, in their esteem, consists entirely in those elevated and enterprizing qualities which are associated with the idea of heroism. An expiring warrior, therefore, is never affected with those fears of futurity which, to the disciples of a purer religion,

when they are not assured of their own interest in its hopes, often render the consequences of death more terrible to them than the pains of dying. His heaven is accommodated to the rudeness of his ideas. It lies in a mild, serene, and bounteous sky far to the South, where he shall forever enjoy the pleasures of a successful chace. Such sensible images are fitted to take the strongest hold upon uncultivated minds. And Mahomet understood human nature well when he proposed such rewards to soldiers who were neither philosophers, nor saints, but whom he intended to make the conquerors of the world. I am aware that spiritual ideas are more powerful than all others, when once they have taken full possession of the soul. But the frailty of human nature, or perhaps, its degeneracy, which is only calling frailty by its cause, makes a sensible religion, and a sensible heaven, the religion and heaven of gross minds. And, when we see a whole nation suffer with such surprizing constancy we must seek for the reasons of it in such principles as will apply to the mass of mankind.—From the combination of so many causes, the savage tribes of America afford the most distinguished examples of a heroic patience in torture that the history of nations has ever recorded.

Upon the whole, it results again from the preceeding details of the military history of the aboriginal tribes of North-America, and especially, of their uncommon power of supporting pain, that their mental as well as corporeal qualities may be all accounted for by natural causes, and on the common principles of human nature; and that it is superfluous and unphilosophical to attempt to search for the diversity of their moral, more than of their physical character from the more cultivated Europeans, or the citizens of the United States, in any specific difference of nature or organization.

FINIS.