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*Outlines of a Philosophy of the*  
**HISTORY OF MAN**

## CHAPTER V.

*Our Earth is enveloped with an atmosphere, and is in conflict with several of the celestial bodies.*

WE are of such a complicated structure, a summary of almost every species of organization on the Earth, the primitive constituent parts of which were all probably precipitated from the ether, and passed from the invisible to the visible world, that we are incapable of breathing pure air. When our Earth first began to be, the air, in all likelihood, was the magazine, that contained the powers and materials, which formed it. And is it not so still? How many things, heretofore unknown, have been discovered of late years, all of which act through the medium of the air! The electric matter, and the magnetic fluid; phlogiston, and the acidifying principle; cold-engendering salts, and, perhaps, the particles of light, which the Sun may serve only to set in motion; all these are powerful instruments of Nature's operations on the Earth; and how many more yet remain to be discovered! The air fecundates and dissolves; it absorbs, ferments, and precipitates. Thus it seems to be the mother of terrestrial creatures, as well as of the Earth itself; the general vehicle of things, which it receives into its bosom, and again looses from its embrace.

It needs not to be demonstrated, that the influence of the atmosphere co-operates in the most spiritual determinations of all the creatures upon Earth: with the Sun it shares the government of this globe, which it formerly created. What an universal difference would have taken place, had our air possessed a different degree of elasticity and gravity, of purity and density; had it precipitated another water, another earth; and had it otherwise influenced the organization of bodies! Undoubtedly this is the case with other planets, formed in other regions of the air: and thence all the notions we can form of their substances and phenomena from those of our Earth must be altogether uncertain. Prometheus was creator here; he formed bodies from soft precipitated clay, and drew from above as many sparks of light and intellectual power, as were attainable at this distance from the Sun, and in a mass of this particular specific gravity.

The difference between men too, as well as between all the other productions of the terrestrial globe, must be regulated by the specific difference of the medium, in which, as in the organ of the deity, we live. This respects not merely the division of the zones according to heat and cold, or merely the lightness or



weight of the atmosphere, that presses on us ; but infinitely more the various active immaterial powers, that operate in it, nay, probably constitute all it's qualities and phenomena. How the electric and magnetic streams flow round our Earth ; what vapours and exhalations ascend in this place or in that ; whether they tend ; into what they are converted ; what organizations they produce ; how long they sustain them ; and how they dissolve them ; all evidently affect the constitution and history of every race of men : for man, like every thing else, is a nursling of the air, and in the whole circle of his existence is the brother of all the organized beings upon Earth.

It seems to me, we should approach a new world of knowledge, if the observations, which Boyle, Boerhaave, Hales, S'Gravefande, Franklin, Priestley, Black, Crawford, Wilson, Achard, and others, have made on heat and cold, on electricity, and on the different species of air, with other chemical principles ; and if their influence in the mineral and vegetable kingdoms, and on men and animals, were collected into one natural system. If in time these observations should become as multifarious and general, as the increasing knowledge of various regions and productions of the Earth would allow, till the growing study of nature should establish as it were an universally diffused free academy, which should observe, with divided attention, but with one regard to truth, certainty, utility, and beauty, the influence of these principles in this place and that, on one subject and another ; we should ultimately obtain a geographical aerology, and see this great hothouse of Nature operating a thousand changes by the same fundamental laws. Thence would the formation of man, in body and in mind, be explained to us ; and we should be enabled to finish the picture, of which we have at present but a few, though clear, outlines.

But the Earth is not alone in the universe : other celestial beings, therefore, operate on it's atmosphere, on this great repository of active powers. That globe of eternal fire, the Sun, governs it with his beams. The Moon, that ponderous gravitative body, that probably hangs even within it's atmosphere, presses on it at one time with her cold and dark surface, at another with her face warmed by the Sun. Now she is before, then behind it : at one time she is nearer the Sun, at another farther off. Other celestial bodies approach the Earth, press on it's orbit, and modify it's powers. The whole system of the heavens is a strife of similar or dissimilar orbs, propelled with great force toward each other ; and nothing but the one great idea of omnipotence alone could balance these propelling powers, and uphold them in the conflict. Here too, in the wide labyrinth of contending powers, has the human understanding found a clew, and almost performed miracles ; guided principally by the irregular Moon, propelled

by two opposite forces, and fortunately placed so near us. Were all these observations, and their results, once to be applied to our aerial orb, as they have already been to the ebb and flow of our ocean; were the industry of many years to proceed, in various places of the Earth, assisted by delicate instruments, part of which are already invented, to reduce to order, and connect in one whole, the revolutions of this celestial sea, according to time and place; I am of opinion, *astrology* would appear anew among our sciences in the most respectable and useful form; and what Toaldo began, what De Luc, Lambert, Mayer, Beckmann, and others, have promoted by the establishment of principles or collateral helps, probably a Gatterer would complete, and assuredly with a comprehensive view of geography and the history of man.

Be this as it may, we are, and we grow, we wander and toil, under or in a sea of celestial powers, part of which we have observed, and of part of which we have formed conjectures. Since air and weather have so much power over us, and the whole Earth; in all likelihood it was here an electrical spark, that shot more pure into this human being; there a portion of inflammable matter, more forcibly compressed into that; here a mass of mere coldness and serenity; there a soft, mollifying, diffusive essence; that determined and produced the greatest epochs and revolutions of humankind. The omnipresent eye, under which this clay also is fashioned according to eternal laws, can alone point out to every elementary atom, every emitted spark, every ethereal ray, in this world of physical powers, its place, its time, and its sphere of action, to mix and qualify it with opposite powers.

## CHAPTER VI.

*The planet we inhabit is an Earth of mountains, rising above the surface of the waters.*

THIS is confirmed by a simple inspection of a map of the World, which exhibits chains of mountains, not merely traversing the dry land, but evidently appearing to constitute the skeleton, on which the land was formed. In America the mountains run along the western coast through the isthmus. They proceed obliquely, as does the land: where they penetrate more interiorly, the land grows wider, till they are lost in the unknown regions of New-Mexico. It is likely, that here they not only proceed higher up to mount Elias, but are also laterally connected with others, particularly the Blue Mountains, as in South America, where the

## PHILOSOPHY OF HISTORY.

## BOOK VII.

**T**HE picture of nations hitherto sketched must be considered only as the foreground, serving as a basis to farther observations: while it's groups answer the purpose of the *templa* of the augurs in the skies, forming definite spaces for our contemplation, and aids to our memory. Let us see what they afford towards a philosophy of our species.

## CHAPTER I.

*Notwithstanding the Varieties of the human Form, there is but one and the same Species of Man throughout the Whole of our Earth.*

No two leaves of any one tree in nature are to be found perfectly alike; and still less do two human faces, or human frames, resemble each other. Of what endless variety is our artful structure susceptible! Our solids are decomposable into such minute and multifariously interwoven fibres, as no eye can trace; and these are connected by a gluten of such a delicate composition, as the utmost skill is insufficient to analyse. Yet these constitute the least part of us: they are nothing more than the containing vessels and conduits of the variously compounded, highly animated fluid, existing in much greater quantity, by means of which we live and enjoy life. 'No man,' says Haller \*, 'is exactly similar to another in his internal structure: the courses of the nerves and bloodvessels differ in millions and millions of cases, so that amid the variations of these delicate parts, we are scarcely able to discover in what they agree.' But if the eye of the anatomist can perceive this infinite variety, how much greater must that be, which dwells in the invisible powers of such an artful organization! so that every man is ultimately a world, in external appearance indeed similar to others, but internally an individual being, with whom no other coincides.

\* Preface to Buffon's Nat. Hist. Vol. III.

And since man is no independent substance, but is connected with all the elements of nature; living by inspiration of the air, and deriving nutriment from the most opposite productions of the Earth, in his meats and drinks; consuming fire, while he absorbs light, and contaminates the air he breathes; awake or asleep, in motion or at rest, contributing to the change of the universe; shall not he also be changed by it? It is far too little, to compare him to the absorbing sponge, the sparkling tinder: he is a multitudinous harmony, a living self, on whom the harmony of all the powers that surround him operates.

The whole course of a man's life is change: the different periods of his life are tales of transformation, and the whole species is one continued metamorphosis. Flowers drop and wither; others sprout out and bud: the vast tree bears at once all the seasons on its head. If, from a calculation of the insensible perspiration alone, a man of eighty have renovated his whole body at least four and twenty times\*; who can trace the variations of matter and its forms through all the race of mankind upon the Earth, amid all the causes of change; when not one point on our complicated Globe, not one wave in the current of time, resembles another? A few centuries only have elapsed since the inhabitants of Germany were patagonians: but they are so no longer, and the inhabitants of its future climates will not equal us. If now we go back to those times, when every thing upon Earth was apparently so different; the times for instance, when elephants lived in Siberia and North-America, and those large animals existed, the bones of which are to be found on the Ohio; if men then lived in those regions, how different must they have been from those, who now inhabit them! Thus the history of man is ultimately a theatre of transformations, which He alone can review, who animates all these figures, and feels and enjoys in them all. He builds up and destroys, improves and alters forms, while he changes the World around them. The wanderer upon Earth, the transient ephemeron, can only admire the wonders of this great spirit in a narrow circle, enjoy the form that belongs to him in the general choir, adore, and disappear with this form. 'I too was in Arcadia:' is the monumental inscription of all living beings in the ever-changing, ever-renewing creation.

As the human intellect, however, seeks unity in every kind of variety, and the divine mind, its prototype, has stamped the most innumerable multiplicity upon the Earth with unity, we may venture from the vast realm of change to revert to the simplest position: *all mankind are only one and the same species.*

\* According to Bernoulli: see Haller's *Physiolog.* Vol. VIII, L. 30, where will be found a multitude of observations on the changes of human life.

How many ancient fables of human monsters and prodigies have already disappeared before the light of history ! and where tradition still repeats remnants of these, I am fully convinced, more accurate inquiry will explain them into more beautiful truths. We are now acquainted with the ourang-outang, and know, that he has no claim to speech, or to be considered as man : and when we have a more exact account of the ourang-kubub, and ourang-guhu, the tailed savages of the woods in Borneo, Sumatra, and the Nicobar islands will vanish \*. The men with reverted feet in Malacca †, the probably ricketty nation of dwarfs in Madagascar, the men habited like women in Florida, and some others, deserve such an investigation as has already been bestowed on the albinos, the dondoes, the patagonians, and the aprons of the hottentot females ‡. Men, who succeed in removing wants from the creation, falsehoods from our memory, and disgraces from our nature, are to the realms of truth, what the heroes of mythology were to the primitive world ; they lessen the number of monsters on the Earth.

I could wish, too, that the affinity of man to the ape had never been urged so far, as to overlook, while seeking a scale of Being, the actual steps and intervals, without which no scale can exist. What for example can the ricketty ourang-outang explain in the figure of the kamtschadale, the little pigmy in the size of the greenlander, or the pongo in the patagonian ? for all these forms would have arisen from the nature of man, had there been no such thing as an ape upon the Earth. And if men proceed still farther, and deduce certain deformities of our species from an intermixture with apes, the conjecture, in my opinion, is not less improbable than degrading. Most of these apparent resemblances of the ape exist in countries where no apes are to be found ; as the reclining skulls of the calmuks and mallicolese, the prominent ears of the pevas and amicuans, the small hands of some savages in Carolina, and other instances, testify. Even these appearances, as soon as we have surmounted the illusion of the first view, have so little of the ape, that the calmuks and the negro remain completely men, even in the form of the head, and the mallicolese dis-

\* Even Mariden mentions these in his history of Sumatra, but only from hearsay. Monbodo, in his work on the Origin and Progress of Language, Vol. I, p. 219 and following, has collected all the traditions respecting men with tails he could find. Professor Blumenbach, *De Generis humani Varietate*, 'On the Varieties of the human Species,' has shown from what sources the delineations of tailed men of the woods have been derived.

† Sonnerat also, in his *Voyage aux Indes*, 'Voyage to India,' Vol. II, p. 103, speaks of these, but from report merely. Commerçon has revived the story of dwarfs in Madagascar after Flaucourt ; but later travellers have rejected it. On the hermaphrodites of Florida see Heyne's critical essay in the *Comment. Societ. Reg. Götting.*, 'Memoirs of the Royal Society of Göttingen,' for the year 1778, p. 993.

‡ See Sparmann's *Voyage*, p. 177.

plays capacities, that many other nations do not possess. In fact, apes and men never were one and the same genus, and I wished to rectify the slight remains of the old fable, that in some place or other upon the Earth they lived in community, and enjoyed no barren intercourse \*. For each genus Nature has done enough, and to each has given it's proper progeny. The ape she has divided into as many species and varieties as possible, and extended these as far as she could : but thou, O man, honour thyself : neither the pongo nor the gibbon is thy brother : the american and the negro are : these therefore thou shouldst not oppress, or murder, or steal ; for they are men, like thee : with the ape thou canst not enter into fraternity.

Lastly, I could wish the distinctions between the human species, that have been made from a laudable zeal for discriminating science, not carried beyond due bounds. Some for instance have thought fit, to employ the term of *races* for four or five divisions, originally made in consequence of country or complexion : but I see no reason for this appellation. Race refers to a difference of origin, which in this case does not exist, or in each of these countries, and under each of these complexions, comprises the most different races. For every nation is one people, having it's own national form, as well as it's own language : the climate, it is true, stamps on each it's mark, or spreads over it a slight veil, but not sufficient to destroy the original national character. This originality of character extends even to families, and it's transitions are as variable as imperceptible. In short, there are neither four or five races, nor exclusive varieties, on this Earth. Complexions run into each other : forms follow the genetic character : and upon the whole, all are at last but shades of the same great picture, extending through all ages, and over all parts of the Earth. They belong not, therefore, so properly to systematic natural history, as to the physico-geographical history of man.

\* In the *Aufzeichnungen aus dem Tagebuch eines neuen Reisenden nach Asien*, 'Extracts from the Journal of a late Traveller in Asia,' Leipzig, 1784, p. 256, this is asserted anew, still only from report.

## CHAPTER II.

*The one Species of Man has naturalized itself in every Climate upon Earth.*

**O**BSEERVE yon locusts of the Earth, the kalmuc and mungal : they are fitted for no region but their own hills and mountains \*. The light rider flies on his little horse over immense tracts of the desert; he knows how to invigorate his fainting courser, and by opening a vein in his neck, to restore his own powers, when *He* sinks with fatigue. No rain falls on many parts of these regions, which are refreshed solely by the dew, while inexhaustible fertility clothes the earth with continually renovated verdure. Throughout many extensive tracts no tree is to be seen, no spring of fresh water to be discovered. Here these wild tribes, yet preserving good order among themselves, wander about among the luxuriant grafs, and pasture their herds : the horses, their associates, know their voices, and live like them in peace. With thoughtless indifference sits the indolent kalmuc, contemplating the undisturbed serenity of his sky, while his ear catches every sound, that pervades the desert his eye is unable to scan. In every other region of the Earth the mungal has either degenerated or improved : in his own country he is what he was thousands of years ago, and such will he continue, as long as it remains unaltered by Nature or by art.

The arab of the desert † belongs to it, as much as his noble horse, and his patient, indefatigable camel. As the mungal wanders over his heights, and among his hills, so wanders the better-formed bedouin over his extensive asiatic-african deserts; also a nomade, but a nomade of *his own* region. With this his simple clothing, his maxims of life, his manners, and his character, are in unison; and, after the lapse of thousands of years, his tent still preserves the wisdom of his forefathers. A lover of liberty, he despises wealth and pleasure, is fleet in the course, a dextrous manager of his horse, of whom he is as careful as of himself, and equally dextrous in handling the javelin. His figure is lean and muscular; his complexion brown; his bones strong. He is indefatigable in supporting labour, bold and enterprising, faithful to his word, hospitable and

\* For particular regions see Pallas and others already quoted. The account given by G. Opitz of his life and imprisonment among a kalmuc horde at Yaik would be a very descriptive picture of their mode of living, if it were

not embellished with so many of the editor's remarks, which give it an air of romance.

† Beside the many ancient travels in Arabia see those of Pages, Vol. II, p. 62—87.

magnanimous, and, connected with his fellows by the desert, he makes one common cause with all. From the dangers of his mode of life he has imbibed wariness and shy mistrust; from his solitary abode, the feelings of revenge, friendship, enthusiasm, and pride. Wherever an arab is found, on the Nile or the Euphrates, on Libanus or in Senegal, nay even in Zanguebar or the islands of the indian ocean, if a foreign climate have not by length of time changed him into a colonist, he will display his original arabian character.

The californian, on the verge of the earth, in his barren country, exposed as he is to want, and amid the vicissitudes of his climate, complains not of heat or cold, eludes the force of hunger, though with the utmost difficulty, and enjoys happiness in his native land. 'God alone can tell,' says a missionary\*, how many thousand miles a californian, that has attained the age of eighty, must have wandered over before he finds a grave. Many of them change their quarters perhaps a hundred times in a year, sleeping scarcely three nights together on the same spot, or in the same region. They lie down wherever night overtakes them, without paying the least regard to the filthiness of the soil, or endeavouring to secure themselves from noxious vermin. Their dark brown skin serves them instead of coat and cloak. Their furniture consists of a bow and arrows, a stone for a knife, a bone or sharp stake to dig up roots, the shell of a tortoise for a cradle, a gut or a bladder to carry water, and, if they be peculiarly fortunate, a pouch made of the fibres of the aloe, somewhat in the fashion of a net, to contain their utensils and provision. They feed on roots, and all sorts of small seeds, even those of grass, which they collect with great labour; nay, when pressed by want, they pick them out of their own dung. Every thing that can be called flesh, or barely resembles it, even to bats, grubs, and worms, is to be reckoned among the dainties, on which they feast; and the leaves of certain shrubs, with their young shoots, leather, and spongy bones, are not excluded from their list of provision, when urged by hunger. Yet these poor creatures are healthy: they live to a great age, and are strong; so that it is uncommon to see a man grayheaded, and never but at a late period. They are always cheerful; for ever jesting and laughing; well made, straight, and active; they can lift stones and other things from the ground with their two foremost toes; they walk as erect as a dart to the extreme of old age; and the children go alone before they are a year old. When weary of talking, they lie down and sleep, till awakened by hunger, or the desire of eating: and as soon as they are awake, the

\* *Nachrichten von Kalifornien*, 'Account of California,' Mannheim, 1773.



laugh, the talk, and the jest, recommence. Thus they go on, till worn out by old age, when they meet death with calm indifference. The inhabitant of Europe,' continues the missionary, 'may envy the happiness of the californian : but for this the native of California is indebted solely to his perfect indifference whether he possess much or little in this world, and his absolute resignation to the will of God in all the occurrences of life.'

In this manner I might go on, and exhibit climatic pictures of several nations, inhabiting the most different regions, from Kamtschatka to Tierra del Fuego : but why should I give these brief sketches, since every traveller, who sees with accuracy, or feels as a man, gives the shade of the climate to every little stroke of his delineations ? In India, the grand resort of commercial nations, the arab and the chinese, the turk and the persian, the christian and the jew, the negro and the malay, the japanese and the gentoo, are clearly distinguishable \* : thus every one bears the characters of his country and way of life on the most distant shores. The ancient allegorical tradition says, that Adam was formed out of the dust of all the four quarters of the Globe, and animated by the powers and spirits of the whole Earth. Wherever his children have bent their course, and fixed their abode, in the lapse of ages, there they have taken root as trees, and produced leaves and fruit adapted to the climate. Hence let us deduce a few consequences, which seem to explain to us many things, that might otherwise be deemed striking singularities in the history of man.

In the first place it is obvious why all sensual people, fashioned to their country, are so much attached to the soil, and so inseparable from it. The constitution of their body, their way of life, the pleasures and occupations to which they have been accustomed from their infancy, and the whole circle of their ideas, are climatic. Deprive them of their country, you deprive them of every thing

'It has been remarked,' says Cranz †, 'of the six greenlanders, who were brought over to Denmark, that, notwithstanding all the friendly treatment they received, and the abundance of stockfish and train-oil, with which they were supplied, their eyes were often turned toward the north and their native country, with melancholy looks and piteous sighs ; and at length they attempted to make their escape in their canoe. A strong gale having driven them on the coast of Scania, they were brought back to Copenhagen, when two of them died of grief. Two of the others again ran away, and only one of them was retaken,

\* See Mackintosh's Travels, Vol. II, p. 27.

† *Gesch. von Grönland*, 'History of Greenland,' p. 355.

who wept bitterly whenever he saw a child in it's mother's arms; whence it was inferred, that he had a wife and children, for no one was able to converse with him, or prepare him for baptism. The last two lived ten or twelve years in Denmark, and were employed in the pearl-fishery at Coldingen, but were so hard-worked in winter, that one of them died. The other, again attempting to escape, was retaken thirty or forty leagues from land, when he too died of grief.'

No words can express the sorrow and despair of a bought or stolen negro-slave, when he leaves his native shore, never more to behold it while he has breath. 'Great care must be taken,' says Rœmer \*, 'that the slaves do not get hold of a knife, either in the fort, or aboard the ship. To keep them in good humour on their passage to the West Indies requires the utmost exertion. For this purpose violins are provided, with fifes and drums; they are permitted to dance; and they are assured, that they are going to a pleasant country, where they may have as many wives as they please, and plenty of good food. Yet many deplorable instances have been known of their falling upon the crew, murdering them, and letting the ship drive ashore.' But how many more deplorable instances have been known of these poor stolen wretches destroying themselves in despair! Sparmann informs us †, from the mouth of a slave-dealer, that at night they are seized with a kind of frenzy, which prompts them to commit murder, either on themselves or others; 'for the painful recollection of the irreparable loss of their country and their freedom commonly awakes by night, when the bustle of the day ceases to engage their attention.' And what right have you, monsters! even to approach the country of these unfortunates, much less to tear them from it by stealth, fraud, and cruelty? For ages this quarter of the Globe has been theirs, and they belong to it: their forefathers purchased it at a dear rate, at the price of the negro form and complexion. In fashioning them the african sun has adopted them as it's children, and impressed on them it's own seal: wherever you convey them, this brands you as robbers, as stealers of men.

Secondly. Thus the wars of savages for their country, or on account of it's children, their brethren, torn from it, or degraded and oppressed, are extremely cruel. Hence, for instance, the lasting hatred of the natives of America toward europeans, even when these behave to them with tendernefs: they cannot suppress the feeling: 'this land is ours; you have no business here.' Hence the

\* Rœmer's *Nachrichten von der Küste Guinea*,  
'Account of the Coast of Guinea,' p. 279.

† Sparmann's *Voyages*, p. 73. This humane

traveller has interspersed through his work many melancholy accounts of the capture and treatment of slaves, p. 195, 612, &c.

treachery of all savages, as they are called, even when they appear altogether satisfied with the courtesy of european visitors. The moment their hereditary national feelings awake, the flame they have long with difficulty smothered breaks out, rages with violence, and frequently is not appeased, till the flesh of the stranger has been torn by the teeth of the native. To us this seems horrible; and it is so, no doubt: yet the europeans first urged them to this misdeed: for why did they visit their country? why did they enter it as despots, arbitrarily practising violence and extortion \*? For ages it had been to it's inhabitants the universe: they had inherited it from their fathers, and from them too they had inherited the barbarous practice of destroying in the most savage manner all, who would deprive them of their territory, tear them from it, or encroach upon their rights. Thus to them an enemy and a stranger are the same: they resemble the *muscipula*, which, rooted to it's soil, attacks every insect that approaches it: the right of devouring an unbidden or unfriendly guest is the tribute they exact; as *cyclopal* a tribute as any in Europe.

Lastly, I cannot pass over those joyful scenes, when a stolen son of nature revisits his paternal shores, and is restored to the bosom of his country. When the worthy soley priest, Job Ben Solomon †, returned to Africa, every soley embraced him with brotherly affection, 'he being the second of their countrymen, that had ever returned from slavery.' How ardently had he longed for this! How little was his heart satisfied with all the tokens of friendship and respect he received in England, which, as an enlightened, good-hearted man, he gratefully acknowledged! He was never at ease, till he was certain of the ship, that was to carry him home. This longing depends not on the state or advantages of a man's native land. The hottentot Coree threw away all his european accoutrements, useful as they might be, to share again the hardships of his countrymen ‡. Instances might be cited from almost every climate, and the most inhospitable countries have the strongest attractions for their natives. Even the difficulties surmounted, to which body and mind are formed from infancy, impart to the natives that love of country and climate, which the inhabitants of fertile and populous plains feel much less, and to which the citizen of an european metropolis is almost a stranger. It is time, however, to investigate the term climate

\* See the editor's remarks on the unfortunate Marion's *Voyage à la Mer du Sud*, 'Voyage to the South Sea:' also R. Forster's preface to the Journal of Cook's last Voyage, Berlin, 1781, and the accounts of the conduct of the europeans.

† *Allg. Reisen*, Vol. III, p. 127 and following.

‡ *Ib.* Vol. V, p. 145. For other examples see Rousseau, in the notes to his *Discourse on the Inequality of Men*.

more narrowly; and while some build so much upon it, in the philosophy of the history of man, and others almost deny it's influence altogether, I shall venture on nothing more than problems.

### CHAPTER III.

*What is Climate? and what Effect has it in forming the Body and Mind of Man?*

THE two most fixed points of our Globe are the poles: without these it could not revolve, nay probably could not be a globe. If we knew the genesis of the poles, and the laws and effects of the magnetism of our Earth on the various bodies it contains, should we not have found the warp, which Nature, in the formation of beings, afterwards variously interwove with other superiour powers? But, notwithstanding the many and fine experiments that have been made, as we yet know little of it on the whole\*, we are still in the dark with respect to the basis of all climates from the polar regions. At some period, perhaps, the magnet will render us the same service in the sphere of physical powers, as it has already full as unexpectedly on sea and land.

The revolution of our Globe about it's own axis, and round the Sun, affords us a nearer indication of climates; but here too the application of even generally admitted laws is difficult and deceptive. The zones of the ancients have not been confirmed by our later knowledge of foreign parts, as, physically considered, they were founded on ignorance of them. It is the same with our calculations of heat and cold from the quantity and angle of the solar beams. As a mathematical problem, the effect of these has been industriously calculated with the greatest accuracy; but the mathematician himself would deem it an abuse of his rule, if the philosopher, in writing the history of climates, should build conclusions on it, without admitting exceptions†. In one place the proximity of the sea, in another the wind, here the height of the land, there it's depth, in a fifth place the vicinity of mountains, in a sixth rain or mist, gives such a particular local qualification to the general law, that we frequently find the most opposite climates in places bordering upon each other. Beside this, it is evident from modern experiments, that every living being has it's own mode of receiv-

\* See Brugmann *Ueber den Magnetismus*, 'On Magnetism,' propositions 24—31.

† See Kästner's elucidation of Halley's Me-

thod of calculating heat, in the *Hamburg Magazine*, p. 429 and following.

ing and evolving heat; nay, that the more elaborate the organization of a creature, and the more active the vital power it exerts, the greater capacity it possesses of generating relative heat and cold \*. The old position, that man can live only in a climate, the heat of which does not exceed that of the blood, has been confuted by experience: on the other hand, the modern systems of the origin and effect of animal heat are far from having attained sufficient perfection, for us in any wise to think of a climatology of the human frame merely, not to mention the faculties of the mind, and their arbitrary application. Every one indeed knows, that heat extends and relaxes the fibres, attenuates the fluids, and promotes perspiration; and that thus it is capable in time of rendering the solids light and spongy, &c. This law remains incontestible on the whole †; and in consequence, from it and its antagonist, cold, many physical phenomena have been already explained ‡: but general inferences from this principle, or from a part of it, as relaxation or perspiration for instance, to whole nations and countries, nay to the most delicate functions of the human mind, and the most accidental ordinances of society, are all in some measure hypothetical; and this the more, in proportion as the head that considers and arranges them is acute and systematic. They are contradicted almost step by step, by examples from history, or even by physiological principles; because too many powers, partly opposite to each other, act in conjunction. It has even been objected to the great Montesquieu, that he has erected his climatic spirit of laws on the fallacious experiment of a sheep's tongue. It is true, we are ductile clay in the hand of Climate; but her fingers mould so variously, and the laws, that counteract them, are so numerous, that perhaps the genius of mankind alone is capable of combining the relations of all these powers in one whole.

Heat and cold are not the sole principles of the atmosphere, that act upon us; for it appears from late observations, to be a magazine of other powers, which combine with us to our detriment or advantage. In it operates the stream of electric fire; a powerful substance, of the influence of which on the animal machine we yet know little: and we are fully as ignorant how it is received into the human body, and what changes it undergoes in it. We live by the inspiration of air: yet its balsam, our vital aliment, is a mystery to us. If

\* Crell's *Versuche ueber das Vermögen der Pflanzen und Thiere Wärme zu erzeugen und zu vernichten*, 'Experiments on the Capacities of Plants and Animals to generate and destroy Heat,' Helmstadt, 1778: Crawford's *Experiments on the Power of Animals to produce*

Cold, *Philosophical Transactions*, Vol. LXXI, Part II, Art. 31.

† See the *Pathology of Gaubius*, Chap. V, X, &c.

‡ See Montesquieu, Castillon, Falconer, not to mention a number of less important tracts.



now we add the various and almost innumerable local modifications of it's component parts, from the effluvia of different substances; if we recollect the frequent instances of extraordinary, often terrible, and for ages inextinguishable diseases, that have arisen from an invisible malignant seed, to which the physician is unable to give any other name than that of miasma; if we reflect on the secret poison, that has brought us the smallpox, the plague, syphilis, and many other disorders, which in the course of time have disappeared; and consider how little we know, not of the *harmattan* and *simoom*, the *sirocco* and north-east wind of Tatar, but of the constitution and effects of our own winds: how many introductory labours shall we perceive to be wanting, ere we arrive at a physiologico-pathology, to say nothing of a climatology, of all the sensitive and cognitive faculties of man! In the mean time, every judicious attempt deserves it's laurels, and posterity will have many honourable ones, to bestow on the present times\*.

Lastly, the elevation or depression of a region, it's nature and products, the food and drink men enjoy in it, the mode of life they pursue, the labours in which they are employed, their clothing, even their ordinary attitudes, their arts and pleasures, with a multitude of other circumstances, which considerably influence their lives, all belong to the picture of changeable climate. What human hand can reduce this chaos of causes and effects to a world of order, in which every individual thing, and every individual region, shall enjoy it's rights, and no one receive too much or too little? The best and only thing we can do is, to examine particular regions climatically, after the manner of Hippocrates†, with his sagacious simplicity, and then slowly, slowly deduce general inferences. The natural historian and physician are here the pupils of Nature, and the teachers of the philosopher. To them we and posterity also are already indebted for several materials, collected in different regions, toward a general doctrine of climates and their effects upon man.—But here we must content ourselves with general remarks, as we cannot descend to particular observations.

1. *As our Earth is a globe, and the firm land a mountain raised above the sea, a climatic community, affecting the life of every thing living, is promoted on it by various causes.* Not only is the climate of every region periodically changed by the alternation of day and night, and the revolution of the seasons; but the

\* See Gmelin *ueber die neuern Entdeckungen in der Lehre von der Luft*, 'on the modern Discoveries in Aerology,' Berlin, 1784.

† See Hippocrates *de Aere, Locis, et Aquis*, particularly the second part of the treatise. He is my principal author on the subject of climate.

jarring of the elements, the mutual action of sea and land upon each other, the situation of mountains and plains, the periodical winds, that arise from the motion of the Globe, the changes of the season, the appearance and disappearance of the Sun, and many less important causes, maintain this salutiferous union of the elements, without which every thing would stagnate in drowsiness and corruption. We are surrounded by an atmosphere; we live in an electric ocean: but both, and probably the magnetic fluid with them, are in continual motion. The sea emits vapours; the mountains attract them, and send them down in rain and streams on every side. Thus winds relieve each other: thus years, or periods of years, fulfil their climatic days. Thus different regions and ages follow one another; and every thing on our Globe combines in one general connexion. Had the Earth been flat, or angular, as the Chinese have dreamed, its corners might have produced climatic monsters, incompatible with its present regular structure, and diffusive movement. The Hours dance in a circle round the throne of Jove, and what is formed under their feet is only an imperfect perfection, because all originates from the union of things various in kind: but from an internal love and conjunction with one another, the children of Nature, sensible Regularity and Beauty, are every where produced.

2. *The habitable land of our Earth is accumulated in regions, where most living beings act in the mode best adapted to them; and this situation of the quarters of the Globe influences all its climates.* Why does the cold in the southern hemisphere commence so near the line? The natural philosopher answers, 'because there is so little land, so that the cold winds and ice of the south pole extend themselves to a great distance.' Thus we perceive what would have been our fate, had the whole of our firm land been scattered about in islands. Now three quarters of the Globe, lying in contact, warm each other: the fourth, being remote from them, is on this account colder; and in the South Sea, a very little beyond the line, degeneracy and deformity begin with the deficiency of the land. Fewer species of the more perfect animals also dwell there. The southern hemisphere was made the grand reservoir of water for our Globe, that the northern might enjoy a better climate. Thus, whether we consider the World geographically, or climatically, we find Nature intended mankind to be neighbourly beings, dwelling together, and imparting to each other climatic warmth, and other benefits, as well as the plague, diseases, and climatic vices.

3. *By the formation of the land on the frame of the mountains, not only were its climates infinitely diversified for the great variety of living beings, but the degeneration of the human species was provided against as much as possible.* Mountains were necessary to the Earth: but we find mongals and tibetians only on one ridge of

them ; the lofty Cordilleras, and many others their fellows, are uninhabitable. Barren deserts, also, are rare, from the mountainous structure of the Earth : for the mountains rise as conductors of the clouds, and pour out from their horns of plenty fertilizing streams. The barren shore, the bleak or marshy border of the sea, is every where more recently formed land ; and consequently men have taken possession of it later, and when their powers were already improved. The vale of Quito was inhabited unquestionably before Tierra del Fuego ; Cashmire, sooner than New Holland or Nova Zembla. The middle and broadest part of the earth, the land of the finest climate between sea and mountains, was the nursery of our species, and is even now the most fully peopled part of the Globe.

There is no question, but, as climate is a compound of powers and influences, to which both plants and animals contribute, and which every thing that has breath promotes in it's reciprocating mutations, so man is placed in it as a sovereign of the Earth, to alter it by art. Since he stole fire from Heaven, and rendered steel obedient to his hand ; since he has made not only beasts, but his fellow men also, subservient to his will, and trained both them and plants to his purposes ; he has contributed to the alteration of climate in various ways. Once Europe was a dank forest ; and other regions, at present well cultivated, were the same. They are now exposed to the rays of the Sun ; and the inhabitants themselves have changed with the climate. The face of Egypt would have been nothing more than the slime of the Nile, but for the art and policy of man. He has gained it from the flood ; and both there, and in farther Asia, the living creation has adapted itself to the artificial climate. We may consider mankind, therefore, as a band of bold though diminutive giants, gradually descending from the mountains, to subjugate the earth, and change climates with their feeble arms. How far they are capable of going in this respect futurity will show.

4. Finally, if it be allowable to speak in general terms on a subject, which rests so completely on particular cases, local or historical, I will insert, with a little variation, some cautions, that Bacon gives with respect to the history of revolutions\*. The action of climate extends itself indeed to bodies of all kinds, but chiefly to the more delicate, to fluids, the air, and the ether. It operates rather on the mass, than on the individual : yet on this, through that. It is not confined to points of time, but prevails through long periods : though it is often late before it becomes obvious, and then perhaps is rendered so by slight circumstances. Lastly, climate does not force, but incline : it gives the imper-

\* *Baco de Augm. Scient. l. 3.*



ceptible disposition, which strikes us indeed in the general view of the life and manners of indigenous nations, but is very difficult to be delineated distinctly. Sometime possibly a traveller may be found, who will pursue without prejudice or exaggeration the *spirit of climate*. At present our duty is rather to note the living powers, for which each climate is formed; and which, by their existence, induce in it various changes and modifications.

## CHAPTER IV.

*The genetic Power is the Mother of all the Forms upon Earth, Climate acting merely as an Auxiliary or Antagonist.*

How must the man have been astonished, who first saw the wonders of the creation of a living being \*! Globules, with fluids shooting between them, become a living point; and from this point an animal forms itself. The heart soon becomes visible, and, weak and imperfect as it is, begins to beat: the blood, which existed before the heart, begins to redden: soon the head appears: soon eyes, a mouth, the senses, and limbs, display themselves. Still there is no breast, yet there is motion in the internal parts: there are no bowels, yet the animal opens its mouth. The little brain is not yet inclosed in the head; or the heart, in the breast: the ribs and bones are like a spider's web: but quickly the wings, feet, toes, hips, appear, and the living creature receives more nourishment. What was naked becomes covered: the breast and head close: the stomach and bowels are still pendulous. These also at length assume their proper form, as more matter is furnished: the integuments contract and ascend: the belly closes: the animal is formed. It now swims no longer, but assumes a recumbent posture: it wakes and sleeps by turns: it moves, it rests, it cries, it seeks an exit, and comes complete in all its parts into the light of day. What would he who saw this wonder for the first time call it? There, he would say, is a *living organic power*: I know not whence it came, or what it intrinsically is: but that it is there, that it lives, that it has acquired itself organic parts out of the chaos of homogeneous matter, I see: this is incontestible.

If he observed farther, and saw, that each of these organic parts was fashioned as it were *in actu*, in its own operation: the heart formed itself no otherwise than by a confluence of the channels, that existed before it; as soon as the stomach was perceptible, matter to be digested was in it. It was the same with

\* See Harvey *de Generat. Animal.*, Wolf's *Theor. Generat.*, &c.

the arteries and all the vessels: the contents existed before what was to contain them, the fluids before the solids, the spirit before the body, in which it is merely clothed. If he observed this\*, would he not say, that the invisible power did not fashion arbitrarily, but only *reveal* itself as it were according to its internal nature? It becomes visible in a mass appertaining to it, and must have *the prototype of its appearance in itself*, whence or wherever it may be. The new creature is nothing but the realization of an idea of creative Nature, who never thinks inactively.

If he go farther and observe, that this creation is promoted by maternal or solar warmth; but that the egg will produce no living fruit, notwithstanding the presence of the necessary warmth and materials, unless quickened by the father: what would he suppose, but that the principle of heat may indeed have some affinity to the principle of life, which it promotes, yet that the cause, which sets this organic power in action, to give the dead chaos of matter a living form, must actually lie in the union of two living beings? Thus we, thus all living creatures, are formed; each after the kind of its organization; but all according to the evident laws of an analogy, that prevails universally with every thing, that lives upon this Earth.

Lastly, when it appears, that this vital power does not quit the finished creature, but *continues to display itself actively* in him; no longer creating indeed, for he is created, but supporting, vivifying, nourishing: from the moment he enters the World, he performs all the vital functions for which, nay in some measure in which, he was made; the mouth opens, as opening was its first action, and the lungs respire; the vocal organs emit sound, the lips suck, the stomach digests; he lives, he grows, all the external and internal parts assist each other; they attract, reject, and assimilate, with associated action and sympathy, and assist one another in pain and disease in a thousand wonderful and incomprehensible ways: what would he, what would any one, who saw this for the first time, say, but that the innate genetic vital power still *resides* in the creature, that was formed by it, in all its parts, and in each after its proper manner, that is organically? It is present in him every where in the most multifarious manner; for only by its means is he a living whole, self supporting, growing, and acting.

This vital power we all have in us: it assists us in sickness and in health, assimilates homogeneous substances, separates heterogeneous matters, and expels such as are injurious; at length it grows feeble with age, and lives in some parts even after death. It is not the faculty of reason: for this assuredly did not fashion

\* Wolf's *Theor. Generat.* p. 169, b. 180—216.

the body, which it does not know, and which it employs merely as an imperfect adventitious instrument, to execute it's thoughts. Yet this faculty is connected with the vital power, as all the powers of nature are connected : for even incorporeal thought depends on the health and organization of the body, and all the desires and propensities of our hearts are inseparable from animal warmth. All these are natural *facts*, which no hypothesis can shake, no logic of the schools overturn : the enunciation of them is the most ancient philosophy of the Earth, as probably it will be the last \*. Certainly as I know that I think, yet know not my thinking faculty ; as certainly do I see and feel that I live, though I know not what the vital principle is. This principle is innate, organical, genetic : it is the basis of my natural powers, the internal genius of my being. Man is the most perfect of earthly creatures, only because in him the finest organic powers we know act with the most elaborately organized instruments. He is the most perfect animal plant, a native genius in human form.

If the principles hitherto advanced be just, and they are founded on indisputable experience, our species cannot in any way degenerate, but by the operation of these organic powers. Whatever climate may effect, every man, every animal, every plant, has his own climate ; for every one receives all external impressions in his own manner, and modifies them according to his organs. Even in the minutest fibre man is not affected as a stone, as a hydatid. Let us consider some steps, or shades, of this degeneration.

The first step in the degeneration of the human species exhibits itself in the external parts : not as if these suffered or acted of themselves, but because the power dwelling in us acts from within to without. By the most wonderful mechanism it strives to expel from the body what is incongruous or detrimental to it : the first alterations of it's organic structure, therefore, must be perceptible on the confines of it's domain ; and accordingly the most striking varieties of the species affect only the skin and hair. Nature protects the internal essential form, and drives out as far as possible the aggrieving matter.

If the altered external power proceed farther, it's effects show themselves in the same way as the vital principle itself acts, *in the way of nutrition and propagation*. The negro is born fair : the parts that first grow black in him † are

\* Hippocrates, Aristotle, Galen, Harvey, Boyle, Stahl, Giffon, Gaubius, Albinus, and many others of the greatest observers or philosophers of the human species, compelled by experiment, have admitted this vital principle,

only bestowing on it various appellations, or sometimes not sufficiently discriminating it from collateral powers.

† See the preceding book, p. 151.

evident signs, that the miasma of his change, which the external air merely develops, acts genetically. The age of puberty, as well as a multitude of facts observed in diseases, shows us the extensive sway, that the powers of nutrition and propagation possess in the human body. By these the remotest parts of the body are connected; and in the degeneration of the species these parts suffer in conjunction. Hence, the skin and sexual parts excepted, the ears, the neck and voice, the nose, the lips, the head, &c., are precisely the parts, in which most changes appear.

Finally, as the vital principle connects all the parts together, and the organization is a complicated knot, which has properly neither beginning nor end, it is easy to comprehend, that the most internal change of any consequence must ultimately become visible even in the parts possessing the greatest solidity, the relations of which are altered, by means of the internal power that is affected, from the crown of the head to the sole of the foot. Nature does not easily yield to this change: even in monstrous births, when she has been forcibly disturbed in her operations, she has astonishing ways of reparation, as a defeated general displays most skill in a retreat. The various national forms of people however testify, that even this, the most difficult change of the human species, is possible: and it is rendered so by the multifarious complication and delicate mobility of our frame, with the innumerable powers that act upon it. But this difficult change is effected only from within. For ages particular nations have moulded their heads, bored their noses, confined their feet, or extended their ears: Nature remains true to herself; and if for a time she be compelled to take a course she would not, and send fluids to the distorted parts; she proceeds on her own way, as soon as she can recover her liberty, and produces her own more perfect image. If the deformity be genetic, and effected in the natural way, the case is totally different: it is then hereditary, even in particular parts. Let it not be said, that art or the Sun has flattened the negro's nose. As the figure of this part is connected with the conformation of the whole skull, the chin, the neck, the spine; and the branching spinal marrow is as it were the trunk of the tree, on which the thorax and all the limbs are formed; comparative anatomy satisfactorily shows\*, that the degeneration has affected the whole figure, and none of these solid parts could be changed without an alteration of the whole. Thus the negro form is transmitted in hereditary succession, and is capable of being rechanged no other-wise than genetically. See the negro in Europe: he remains as he was. Let

\* See Sœmmering *Ueber die körperliche Verschiedenheit des Mohren vom Europäer*, 'On the bodily Difference between the Negro and the European,' Mentz, 1784.



him marry a white woman, and a single generation will effect a change, which the fair-complexioned climate could not produce in ages. So it is with the figures of all nations : regions alter them very slowly ; but by intermixture with foreigners, in a few generations every mungal, chinese, or american feature vanishes.

If it be agreeable to the reader to pursue this path, let us go on a few steps farther.

1. It must be obvious to every observer, that, *amid the innumerable varieties of the human figure, certain forms and proportions not only reoccur, but pertain exclusively to each other.* With artists this is an acknowledged fact : and we see in the statues of the ancients, that they placed this proportion, or symmetry as they termed it, not merely in the length and breadth of the limbs, but also in their harmonic adjustment to the spirit of the whole. The characters of their gods and goddesses, their youths and heroes, were so determinate in their whole conformation, that they are in some degree to be known from single limbs, and no one figure will admit of an arm, a breast, a shoulder, that belonged to another. The genius of a particular living being exists in each of these forms, which serves it merely as a shell, and characterizes itself in the least attitude or motion as distinctly as in the whole. Among the moderns, the Polyclete of our country \*, Albert Durer †, has industriously examined the measure of various proportions of the human body ; and thus rendered it obvious to every eye, that the figures of all the parts differ with their proportions. What would it be, if a man united Durer's accuracy with the spirit and taste of the ancients, and studied the differences of the genetic forms and characters of men, in their concordant figures ! Thus, I think, Physiognomy would return to her old natural way, to which her name points ; and in which she would be neither Ethognomy, nor Technognomy, but the expositor of the living *nature* of a man, the interpreter as it were of his genius rendered visible. As within these bounds she remains true to the analogy of the whole, which is most conspicuous in the face, Pathognomy must be her sister, Physiology and Semeiotics her friends and assistants : for the external figure of man is but the case of his internal mechanism, a consistent whole, in which every letter forms a part of the word indeed, but only the whole word has a determinate signification. It is thus we practise and apply physiognomy in common life : the experienced physician sees from a man's make

\* This epithet can allude only to the canon of proportions, which Polyclete is said to have established in one of his figures : Plin. L. XXXIV, c. 8 : for surely neither the materials

nor the style of the scysonian genius were those of Albert of Nuremberg. F.

† Albert Durer's four Books on human Proportion, Nuremberg, 1528.

and countenance to what diseases he is subject, and the physiognomic eye even of a child observes the natural disposition (*φύσις*) of a man in his person, that is, the form in which his genius discloses itself.

Farther. *Are not these forms, these concords of harmonizing parts, capable of being noted, and reduced like letters as it were to an alphabet?* Not that we must expect this system of letters ever to be complete, as there is no such thing as a perfect alphabet in any language; but a careful study of these living orders of human columns unquestionably opens a wide field for the science of character. If in this pursuit we were not to confine ourselves to Europe, and still less to our common idea of the summit of health and beauty, but followed living Nature throughout the Globe, in whatever harmony of congruous parts she displays herself, variously diversified, yet ever one: numerous discoveries respecting the concert and melody of living powers in the human structure would undoubtedly reward our exertions. Nay it is probable, this study of the natural consent of forms in the human body would carry us farther, than the doctrine of complexions and temperaments, often attempted, though commonly to little purpose. The most acute observers have made little progress here, because they have wanted a determinate alphabet, to note the differences, that were to be expressed\*.

As the physiology of life must every where carry the torch before such a *figural history of the formation and diversification of the human species*, the wisdom of Nature, who fashions and alters forms only according to one law of multifariously compensating goodness, would be visible at every step. Why, for example, did the creative mother separate species from each other? For no other reason, but to make and preserve the image of their conformation more perfect. We know not how many of the present species of animals may have approached nearer to each other in an earlier age of our Earth; but we see, that *their boundaries are now genetically separated*. In the wild state, no beast couples with one of a different kind: and if the despotic art of man, or the wanton indolence, to which pampered animals yield, cause a deviation from their real propensities, Nature permits not her unchangeable laws to be surmounted by art or debauchery. Either the union is unproductive, or the forced illegitimate offspring is propagated only among the nearest species. Nay, among these bastard species themselves, we perceive the deviation no where but in the extreme parts of the figure, as in the degeneration of the human species already described: if the internal essential form had been susceptible of alteration, no

\* I find this doctrine reduced to great simplicity in Metzger's miscellaneous Works, Vol. I.

Platner too, and some others, have their acknowledged merits on this head.

living creature could have preserved its identity. Thus in consequence of the fundamental laws of creative nature, and the genetic essential type of each genus, neither a centaur, nor a satyr, neither a Scylla, nor a Medusa, is within the sphere of procreation.

3. Lastly, *the most exquisite means employed by Nature, to unite variety and stability of form in her genera, were the creation and union of the two sexes.* With what wonderful delicacy and spirit do the features of the two parents unite in the countenances and make of their children! as if their souls had been transfused into them in different proportions, and the multifarious natural powers of organization had been divided between them. That diseases and features, nay that tempers and dispositions, are hereditary, is known to all the world: even the forms of ancestors long departed frequently return in the course of generations in a wonderful manner. Equally undeniable, though not easy to be explained; is the influence of the bodily and mental affections of the mother on the foetus; many lamentable examples of the effects of which have been born till death. Thus Nature has turned into each other two currents of life, to endow the future creature with one complete natural power, which will live in it according to the features of both the parents. Many a declining race is again restored by a cheerful healthy mother: many a debilitated youth must first be awakened to a living natural creature in the arms of his wife. In the genial formation of man Love is the most powerful of all deities: he ennobles races, and revives the declining: a ray of the divinity, the sparks of which kindle the flame of human life, and make it burn here more vividly, there more obscurely. Nothing, on the contrary, counteracts the plastic genius of Nature more than cold antipathy; or disgusting convenience, which is even worse. This brings persons together, who were never designed for each other, and perpetuates miserable beings, never in harmony with themselves. No brute has yet sunk so low, as man has fallen from this cause of degeneracy.

## CHAPTER V.

*Concluding Remarks on the Opposition between Genesis and Climate.*

IF I mistake not, the hints, that have been given, may be considered as the commencement of the line, that marks this opposition. No man will expect, for instance, that the rose should become a lilly, the dog a wolf, in a foreign climate : for Nature has drawn determinate lines round her species, and permits a creature rather to disappear, than essentially deface or falsify it's figure. But, that the rose can admit of variation, that the dog can acquire something wolfish, is conformable to experience : yet here the variation is producible only by slow or speedy violence done to the resisting organic powers. Thus both the contending principles act with great force, yet each in it's own way. Climate is a chaos of causes, very dissimilar to each other, and in consequence acting slowly and in various ways, till at length they penetrate to the internal parts, and change them by habit, and by the genetic power itself : this resists long, forcibly, uniformly, and like itself ; but as it is not independent of external affections, it also must accommodate itself to them in length of time.

To an extensive view of the opposition in general, I would prefer an instructive examination of particular cases, of which history and geography afford us an ample store. We know, for example, what effect the adoption of the mode of life of the natives, or the retaining of their own european customs, has had on the portuguese colonies in Africa, or the spanish, dutch, english, and german settlers, in America and the East Indies. When all these were accurately investigated, we might proceed to more ancient transitions ; as for instance of the malays to the islands, the arabs to Africa and the East Indies, and the turks to the countries conquered by them ; and thus go on to the mungals, the tatars, and lastly the swarm of nations, that covered Europe in the course of the great migration. We should never overlook the climate from which a people came, the mode of life it brought with it, the country that lay before it, the nations with which it intermingled, and the revolutions it has undergone in it's new seat. If this inquiry were carried through those ages of which we have authentic accounts, we might probably arrive at conclusions respecting those more early migrations, of which we know nothing but from the traditional tales of ancient writers, or the coincidences of language and mythology ; for in fact all, or most of the nations upon Earth at least, have sooner or later migrated. Thus, with the assistance of a few maps for the convenience of inspection, we should ob-



tain a *physico-geographical history of the descent and diversification of our species according to periods and climates*, which at every step must afford us important results.

Without anticipating the labours of the inquiring mind, that shall undertake this task, I will introduce a few facts from modern history, as brief examples of my preceding examination.

1. *Too sudden, too precipitate transitions to an opposite hemisphere and climate are seldom salutary to a nation*; for Nature has not established her boundaries between remote lands in vain. The history of conquests, as well as of commercial companies, and especially that of missions, afford a melancholy; and in some respects a laughable picture, if we delineate this subject and its consequences with impartiality, even from the narrations of the parties themselves. We shudder with abhorrence when we read the accounts of many european nations, who, sunk in the most dissolute voluptuousness and insensible pride, have degenerated both in body and mind, and no longer possess any capacity for enjoyment and compassion. They are fullblown bladders in human shape, loft to every noble and active pleasure, and in whose veins lurks avenging death. If to these we add the wretches, to whom both the Indies have proved insatiate graves; if we read the histories of the diseases of foreign climates, given by english, french, and dutch physicians; and if we then turn our eyes to the pious missionaries, who have not been so ready to quit the garb of their order, and their european mode of life; what instructive inferences press upon us, which alas! belong to the history of man!

2. *Even the european industry of less debauched colonies in other quarters of the Globe is not always able to avert the effect of climate.* It is observed by Kalm \*, that the europeans in North-America arrive earlier at the age of puberty, but at the same time sooner grow old and die, than in their native country. 'It is nothing uncommon,' says he, 'to find little children answer questions put to them with astonishing readiness and vivacity, and yet not attain the age of europeans. Eighty or ninety years are seldom reached by one born in America of european parents, though the aborigines frequently live much longer: and the natives of Europe commonly live much longer in America, than such of their children as are born in that country. The women sooner cease child-bearing, some as early as the age of thirty: and it is generally observed, that the offspring of the european colonists lose their teeth soon and prematurely, while

\* Gottingen Collection of Travels, Vols. X and XI, *passim*.

the americans retain their teeth white and sound to the end of their lives.' This passage has been improperly quoted as a proof of the unhealthiness of America with respect to her own children : but it is to foreigners only that she is a stepmother, who, as Kalm observes, dwell in her bosom with different constitutions and manners.

3. *Let it not be imagined, that human art can with despotic power convert at once a foreign region into another Europe*, by cutting down it's forests, and cultivating it's soil : for it's whole living creation is conformable to it, and this is not to be changed at discretion. Even Kalm informs us, from the mouths of american swedes, that the speedy destruction of the woods, and cultivation of the land, not only lessened the number of edible birds, which were found in innumerable multitudes in the forests and on the waters, and of fishes with which the brooks and rivers swarmed, and diminished the lakes, streams, rivulets, springs, rains, thick long grafs of the woods, &c. ; but seemed to affect the health and longevity of the inhabitants, and influence the seasons. ' The americans,' says he, ' who frequently lived a hundred years and upwards before the arrival of the europeans, now often attain scarcely half the age of their forefathers : and this, it is probable, we must not ascribe solely to the destructive use of spirits, and an alteration in their way of life, but likewise to the loss of so many odoriferous herbs, and salutary plants, which every morning and evening perfumed the air, as if the country had been a flower-garden. The winter was then more seasonable, cold, healthy, and constant : now the spring commences later, and, like the other seasons, is more variable and irregular.' This is the account given by Kalm ; and however local we may consider it, still it shows, that Nature loves not too speedy, too violent a change, even in the best work, that man can perform, the cultivation of a country. May we not also attribute the debility of the civilized americans, as they are called, in Mexico, Peru, Paraguay, and Brasil, to this among other things, that we have changed their country and manner of living, without the power or the will of giving them an european nature ? All the nations, that live in the woods, and after the manner of their forefathers, are strong and bold, live long, and renovate their vigour like their own trees : those on the cultivated land, deprived of shade and moisture, decline miserably ; their souls are left behind in the woods. Read, as an example, the affecting history of a simple flourishing family, drawn from it's wilds by Dobritzhofer \*. Both the mother and daughter soon died ; and both in dreams continued to call on their son and brother left behind, till death closed

\* Dobritzhofer's *Geschichte der Abiponer*, 'History of the Abiponians,' Vol. I, p. 114.

his eyes without the aid of disease. This alone renders it comprehensible, how nations, that once were valiant, active, and resolute, should in a short time sink into such a state of weakness, as the jesuits of Paraguay and travellers in Peru describe : a weakness of which we cannot read without sorrow. In the course of ages this subjugation of Nature may have it's good effects in particular places \* ; though I doubt this, if it were generally practicable : but for the first races, both of the civilizers and civilized, it appears to have none ; for Nature is every where a living whole, and will be gently followed and improved, not mastered by force. Nothing has been made of any of the savages, who have been suddenly brought into the throng of an european city : from the splendid height, on which they were placed, they longed for their native plains, and for the most part returned inexpert and corrupted to their ancient way of life, which also they were now rendered incapable of enjoying. It is the same with the forcible alteration of savage climates by european hands.

O sons of Dedalus, emissaries of Fate, how many instruments are in your hands for conferring happiness on nations by humane and compassionate means ! and how has a proud insolent love of gain led you almost every where into a different path ! All new comers from a foreign land, who have submitted to naturalize themselves with the inhabitants, have not only enjoyed their love and friendship, but have ultimately found, that their mode of life was not altogether unsuitable to the climate : but how few such are there ! how seldom does an european hear from the native of any country the praise, ' he is a rational man like us ! ' And does not Nature revenge every insult offered her ? Where are the conquests, the factories, the invasions, of former times, when distant foreign lands were visited by a different race, for the sake of devastation or plunder ! The still breath of climate has dissipated or consumed them, and it was not difficult for the natives to give the finishing stroke to the rootless tree. The quiet plant, on the other hand, that has accommodated itself to the laws of Nature, has not only preserved it's own existence, but has beneficially diffused the seeds of cultivation through a new land. Future ages may decide, what benefit, or injury, our genius has conferred on other climates, and other climates on our genius.

\* See Williamfon's attempt to explain the causes of change of climate, in the Berlin Collection, Vol. VII.

## PHILOSOPHY OF HISTORY.

## BOOK VIII.

**A**S it would be with one, who, from navigating the sea, should attempt a voyage through the air, so it is with me, now that, having gone over the figure and natural powers of man, I come to his mind, and attempt to investigate it's variable faculties, as they exist throughout the wide World, from indirect, defective, and partly questionable accounts. The metaphysician has here a much easier task. He sets out with establishing a certain idea of the mind, and from this deduces every thing, that can be deduced, wherever, or under whatever circumstances, it may be found. The philosopher of history can proceed on no abstract notion, but on history alone; and he is in danger of forming erroneous conclusions, if he do not generalize at least in some degree the numerous facts before him. I shall attempt to explore the way, however: yet, instead of launching out into the ocean, I shall rather coast along the shore; or, to speak in plain terms, confine myself to undoubted facts, or such as are generally considered so, distinguishing them from my own conjectures, and leaving it to those who are more fortunate, to arrange and employ them in a better manner.

## CHAPTER I.

*The Appetites of the human Species vary with their Form and Climate; but a less brutal Use of the Senses universally leads to Humanity.*

**A**LL nations, the diseased albinos perhaps excepted, enjoy the five or six senses of man: the men without feeling of Diodorus, and the nations of deaf and dumb, are proved fabulous in modern history. Yet he, who attends only to the difference of the external senses among us, and then considers the innumerable multitudes living in all the climates of the Earth, will find himself contemplating an ocean, where wave loses itself in wave. Every man has a particular proportion, a particular harmony as it were, between all his sensitive feelings; so that, in extraordinary cases, the most wonderful appearances