ANCIENT EUGENICS



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THE preface to a history of Eugenics may be compiled from barbarism, for the first Eugenist was not the Spartan legislator, but the primitive savage who killed his sickly child. The cosmic process was checked and superseded by another as ruthless as Nature's own method of elimination. The lower the community, the more rapidly it reproduces itself. There is an extravagant production of raw material, and the way of Nature, "red in tooth and claw," is the ruthless rejection of all that is superfluous. When there is no differential birth-rate, the result of foresight and self-control, and the attainment of a higher level of civilization, Nature adjusts the balance by means of a differential death-rate. In the days when human or animal foe threatened on every side, when "force and fraud were the two cardinal virtues," and the life of man was "solitary, poor, nasty, brutish, and short," natural selection must have been ruthless and severe. Some conception of the wasteful processes of Nature dawned upon the savage mind. While they lived their short lives, the weakly, the deformed, and the superfluous were a burden to the tribe. Human law, superseding natural law, strove to eliminate them at

birth. This was the atavistic basis on which subsequent Eugenics was built.

In Greece, the theory underwent a logical development. Even in a later age of dawning civilization, war confronted men with this same problem of the ruthless extermination of the unfit. It was recognized that the occurrence of the non-viable child was inevitable, but remedial legislation, reaching a step further back, essayed by anticipation to reduce this waste of life to a minimum. It was realized that to increase the productivity of the best stock is a more important measure than to repress the productivity of the worst. Out of the Negative aspect of Eugenics develops the Positive.

With the advance of civilization, conditions become increasingly stable: war is still imminent, but, instead of being an essential element of existence, it is regarded as a necessary evil. Nature, forging additional weapons, hastens the elimination of the unfit by disease. Some form of Eugenics is still necessary, but in the altered conditions a new ideal is born. The conception of a race of warriors merges into the ideal of a state of healthy citizens. All these formulations of Eugenics are aristocratic and parochial; they are to benefit the people of a single state, and only a section within that state. Any wider conception of racial regeneration was impossible to a people who dichotomized the state into free citizens and living instruments, the world into Greeks and barbarians.

The breakdown of the city states brought a cosmo-

politanism which, instead of widening the ideal of humanity, centred itself on the interests of the individual. Modern Eugenics is based on Evolutionnot a passive form, but one that concedes some latitude to the guiding action of the human will.1 Without some such postulate, egotism becomes a rational creed amid the social welter and worldweariness of a deliquescent civilization. Man is cut off sharply and definitely from all that went before and all that follows. Only the isolated ego remains, "a sort of complementary Nirvana," and the philosophy of "Ichsucht," of self-centred individualism, ends in Hedonism or ascetic alienation from an inexplicable universe. No scheme of social reform can bear fruit in such an atmosphere of philosophic negation. Like Plato's philosopher, man shelters from the tempest behind the wall.

Three conceptions of the cosmic process are possible. We may maintain that there is no such thing as progress, that life is a mere pointless reiteration of age after age till there comes the predestined cataclysm; we may believe in a primeval age of innocence and happiness, a golden age, or a state of nature diablement idéal; finally, we may trust in the gradual evolution of mankind towards a terrestrial Paradise, hoping that "on our heels a fresh perfection treads, a power more strong in beauty, born of us, and fated to excel us as we pass in glory that old darkness."

This conception of man as heir of all the ages,

¹ Galton, "Essays in Eugenics," p. 68.

though vaguely anticipated by Anaximander, was impossible to an age which knew nothing of biology. No system of Eugenics is likely to flourish side by side with the belief in an unprogressive or degenerate humanity, steadily and inevitably declining from primordial perfection. So long as the city state survived, patriotism prevailed over pessimism, and ideals of regeneration were more than the idle dreams of the philosopher. But the growing prominence assigned to the theoretic life shows the gradual growth of despair. After Aristotle, Eugenics takes its place among the forgotten ideals of the past.

But a thought or a theory which has once quickened into life becomes immortal. It may change its form, but it never perishes. Throughout time it is ceaselessly renewing its existence. While infanticide is everywhere disappearing, there remain still the principles simultaneously developed. Three centuries ago Eugenics was the Utopian dream of an imprisoned monk. A century later Steele, more in jest than in earnest, suggested that one might wear any passion out of a family by culture, as skilful gardeners blot a colour out of a tulip that hurts its beauty.¹ But neither science nor public opinion was ready to respond. It was not till late in the nineteenth century that the crude human breeding of the Spartans, in altered form and in new conditions, became the scientific stirpiculture of Galton.

¹ Tatler, vol. ii., No. 175, 1709; quoted by Havelock Ellis, "Social Hygiene."

To read the small minuscule of Ancient Eugenics, it is expedient first to scan the uncials of modern theory. Beneath the new form engendered by altered conditions, with the unessential and accidental passing away into other combinations, there remains an essential identity of form. History can only be an attempted interpretation of earlier ages by the modes of thought current in our own. The foreground of human life we can see with exactness, but the past is foreshortened by the atmosphere of time.

Under the modern conditions of civilization, elimination by international or individual violence is steadily decreasing. Nature has found an equally effective weapon in the process of urbanization. Disease spreads rapidly amid conditions inimical in the highest degree to healthy living. But while infanticide forms the basis on which the ancient system was built, the abolition of that practice has been the starting-point for the New Eugenics. It has confronted us with problems unknown to a pre-Christian age.

The Ancients attempted to combat the wasteful processes of Nature by eliminating the non-viable at birth; our efforts, on the contrary, have been directed to the prolongation of their lives. Instead of sacrificing the unfit in the interests of the fit, we have employed every resource of modern science "to keep alight the feeble flame of life in the baseborn child of a degenerate parent."

¹ Tredgold, "Eugenics and Future Progress of Man."

The weapons forged by Nature have been taken from her hands. Side by side with the rapid multiplication of the unfit there has been a marked decline in the birth-rate of the useful classes of the community. The relatively strongest survive, but their strength has suffered from the influences which brought extinction to the weaker. This is one of the problems caused by a humaner sentiment.

In the second place, the abolition of infanticide has confronted us with the necessity of knowledge. The methods of the breeder are ruthless and precise. He slaughters or he spares, and divergent variations are a matter of no moment. So the Spartans and Plato, with this analogy before them, were saved from the necessity of any deeper knowledge by the preventive check of infanticide. If Nature erred in her intentions, this art was at hand to rectify her mistakes. Infanticide saved the Greeks from the problems of heredity.

For all practical purposes our knowledge is as infinitesimal as in the days of Plato. The methods of biometry and statistics, the actuarial side of heredity, deal merely with the characteristics of groups. Mendelism, dealing with the individual, finds verification in man only in the case of feeble-mindedness and in the inheritance of certain deformities. Any constructive scheme of Eugenics is impossible under the limitations of our knowledge.

Apart from the question of heredity, there is the problem of selection. Though physique is easily estimated, and correlated, perhaps, as Galton held.

with other good qualities, the modern Eugenist has before him no simple homogeneous ideal. He has to recognize the psychical as well as the physical aspect of the intricate mosaic of human personality. The self-sacrificers and the self-tormentors claim their place no less than a Marcus Aurelius or an Adam Bede.¹ Even though we hold it possible to compile a list of qualities for selection universally acceptable, we cannot, under the present limitations of our knowledge, prove personal value to be synonymous with reproductive value. No scheme of economic Eugenics, inferring the aptitudes of individuals from social position or income, can solve the hopeless perplexities that wait upon constructive methods. Passing from the municipality to the world, Eugenics is confronted by the conflicting ideals not only of alternative characters, but also of incompatible civilizations. Since differentiation is an indispensable factor in human progress, there arises the further problem of a Eugenic ethnology.

This, then, is the shape modern theory has assumed in answer to the demands of modern civilization. Lost in Egotism, Eugenics found opposition no less formidable in a spirit of imprudent altruism. Only the scientific altruism of to-day has rendered it once more practicable.

From its origin in the unreflective intuition of the atavistic past we will trace the growth of the theory till it passed into the pages of Aristotle, and became

Galton, "Essays in Eugenics," p. 36.

lost to view amid the throes of a pessimistic and decadent age.

Infanticide and Exposure, terms which in early ages were virtually synonymous, appear on first consideration to have been practised among uncivilized tribes for a bewildering multiplicity of reasons. There is the female infanticide of China and the Isles of the Southern Pacific, the male infanticide of the Abipones of Paraguay, and the indiscriminate massacre of the Gagas, who, killing every child alike, steal from a neighbouring tribe. There are the Indians who offer up children to Moloch or drown them in the Ganges; the Carthaginians sacrifice them to Kronos, the Mexicans to the rain god. There is the murder of twins and albinos in Arebo, and the cannibalism of the Aborigines. In Mingrelia, "when they have not the wherewithal to maintain them, they hold it a piece of charity to murder infants new born." There are the Biluchi, who kill all their natural children, and there is the modern factor of shame.

Co-existing with all these various practices there is the definitely Eugenic motive. Among the Aborigines, all deformed children are killed as soon as born. The savages of Guiana kill any child that is "deformed, feeble, or bothersome." The Fans kill all sickly children. In Central America "it is suspected that infant murder is responsible for the rarity of the deformed." In Tonquin we hear of a

¹ McLennan, "Studies in Ancient History," chap. vii., passim.

law which forbids the exposing or strangling of children, be they ever so deformed. In Japan, deformed children were killed or reared according to the father's pleasure. Among the Prussians the aged and infirm, the sick and deformed, were unhesitatingly put to death.

The question arises, therefore, whether the Eugenic motive first led to the institution of infanticide, or whether it was merely a by-product, a later growth, springing out of a practice which owed its inception to totally different causes. Setting aside infanticide when prompted by mere brutality or cannibalistic cravings, and excluding the modern factor of shame, which was unknown among primitive peoples, the motives may be classified as irrational or rational.

Irrational motives are the religious or superstitious, rational the Eugenic. Between these two there is a wide line of demarcation.

The origin of religious infanticide is obscure. It may be merely evidence of fiendish passion. There may be in it something of a sacramental meal, or possibly the primal idea in its many variations is the gain of some benefit by the sacrifice of something of value. In any case, whatever the basic intention, the religious motive in infanticide has no relation to the Eugenic. Such melancholy theology implies some degree of social organization, and was, therefore, a later and independent conception.

Only some powerful and long-continued pressure could have brought about the reversal of sentiments

which must have been innate in primitive man as much as in other animals. The impelling sources were two—want and war, or both in combination—not want in the form of famine, which, working its own cure, not infrequently leaves an increased prosperity behind it, nor war as brief and desolating in its effects as warfare of to-day, but rather that long-enduring warfare pressing on generation after generation, which is the State of Hostility. This was the normal state of early man, a condition of affairs inseparable from independent life in small communities. Jacob and Esau go their separate ways, form different habits and different languages. Estrangement follows inevitably.

Even before man became his own worst enemy, brute creation must have furnished formidable foes to the naked and defenceless savage. There must have been pending want at this early stage of life. Under pressure of want, the group must adjust their numbers to the available food; under pressure of war, the same problem rises in still more urgent form. From these circumstances arises the practice of infanticide. It is circumstance, says Plato, and not man, which makes the laws.¹

The nomadic group, passing from district to district in search of food, would find the children a burden. The first infanticides, casual rather than premeditated, were in the nature of a desertion. This preparing the way for an extension of the practice would lead to its adoption in the attempt

to adjust numbers to the available food-supply. In the same way non-combatants would be regarded in the nature of impedimenta, since they consumed food without benefiting the group in return.

The first system of infanticide is, therefore, a policy of despair. The first victims would probably be the deformed, the maimed, and the weaklings, and female infanticide would follow. The problem of the maintenance of the race arising would lead to male infanticide whenever there was a deficiency of women; hence the custom, so far from being merely callous and brutal, and an argument for man's inferiority to the beast, is a proof of the highest intelligence.

These barbaric Eugenics, therefore, eliminating at birth those foredoomed to perish in the struggle for existence, were concerned with questions both of quantity and quality. Limitation of numbers. though it does not itself constitute "aggeneration" of the race, improves to a considerable degree the individuals of which the race is constituted. When the undesired children are out of the way, more attention can be paid to the desired. The savage bred recklessly, compensating his recklessness by infanticide, but a natural law of civilization has superseded the artificial law of primitive man. Control of reproduction, and resulting from it a falling birth-rate and a diminished death-rate, is a tendency which, first showing itself in Imperial Rome, is conspicuous to-day in every civilized community.

Infanticide, sanctioned by long usage, passed into the law of civilized nations. It appears in the legislation of Solon,¹ though the grounds for its adoption are uncertain, while at Rome it was ordained by the Twelve Tables for a definitely Eugenic motive. A child conspicuously deformed was to be immediately destroyed.² But this limitation was frustrated by the control conceded to the father, which, restricted in Greece by all legislators alike, was as arbitrary in Rome as in Gaul.³

So at Rome the Eugenic motive fades into the background, and abuses become so frequent that they have to be checked by further legislation. Romulus is said to have forbidden the murder of sons and first-born daughters,⁴ and the "Lex Gentilicia" of the Fabii, who were in danger of extinction, decreed that every child born must be reared.

Under the Empire we find Seneca asserting once more the Eugenic justification of infanticide. "We drown the weakling and the monstrosity. It is not passion, but reason, to separate the useless from the fit." Two distinct tendencies appear, control of

¹ According to Sext. Empiricus (Pyrrhon., "Hypot.," iii. 24), Solon conceded to the father the power of killing his children. Taken in conjunction with the limitation of the *patria potestas*, this appears improbable. According to Plutarch (Solon, xxii.), he sanctioned the exposure of natural children.

² "Insignis ad deformitatem" (Cic., "De Leg.," iii. 8).

³ Cæs., "De Bell. Gall.," vi. 19.

reproduction diminishing infanticide among the upper classes, exposure taking its place among the lower.

The gloomy satirists of the Early Empire, instead of inveighing against the practice of exposure, abused the foresight which superseded it, and, so far from recognizing the tendency as one demanded in the altruistic interests of the race, saw in it merely egotistic subservience to the "captatores." The $\pi o \lambda v \pi a \iota \delta l a s$ $\delta d \lambda a$ of Gaius Julius or the jus trium liberorum of Augustus were futile attempts to combat an essential law of civilization.

The lower classes, on the contrary, propagating recklessly amid extreme pauperism—for rapid multiplication is the concomitant of bad environment—resorted to exposure, which is the antithesis of Eugenic infanticide. Quintilian, indeed, declared that the exposed rarely survived, but the possibilities of gain must have led to frequent preservation—"vel ad lupanar vel ad servitutem." Occasionally the luckless child falls into the hands of unscrupulous mendicants, who maim it and exhibit it for gain. The existence of a numerous class of $\Theta \rho \ell \pi \tau a$ was a problem with which Pliny had to deal.

So the Christian Councils and the Christian Emperors set themselves vehemently to oppose the practice, but, using palliation instead of prevention,

^{1 &}quot; Dec.," cccvi. 6.

² Lact., "De Vero Cultu.," lib. vi.

³ Seneca, "Controv.," v. 33.

relieved the world of one problem and left another in its place. Despite the legislation of Constantine, Valentinian, and Justinian, exposure still continued. Marble vessels at the door of the churches produced the evil turning slide, and gradually there came into being hospitals, asylums, refuges, crèches, receiving and tending the blind, the deaf, the dumb, the crippled, and defective, and with much good has also come much evil. Out of the failure of the Christian Fathers to find the right solution to a difficult problem has arisen the imperative need for the scientific altruism of Eugenics.

Beyond infanticide, which, despite its many perversions, was in part Eugenic, the Romans made no conscious effort to build a scheme of racial regeneration. Whatever the appeal of "patient Lacedæmon" to the sentimental vulgarity of the Romans, they learnt no lesson from their admiration, though the biographer of Lycurgus lectured to Domitian. In the crude scheme of the Germans Tacitus finds no Eugenic moral.

Restrictive marriage, perhaps, would have been a perilous lesson to teach to the Cæsars, in whom, from Julius the epileptic to Nero the madman, psychologists find clear proof of hereditary insanity. Pliny's boast that for 600 years Rome had known no doctors shows that there was little interest among the Romans in schemes of hygiene or social reform. The Greeks themselves had long ago forgotten the teaching of Plato and Aristotle. Eugenics was lost in Stoicism, and Stoicism was the creed of the Empire.

"This age is worse than the previous age, and our father will beget worse offspring still." And Aratus voices again the lament of Horace: "What an age the golden sires have left behind them, and your children will be worse even than you!" The Golden Age of Rome lay for ever in the past.

In Greece, the theory underwent a logical development. State-controlled infanticide passes into a definite scheme of Negative Eugenics. The Negative aspect, giving rise to the Positive, fades into the background, and is retained merely as a check on the imperfections of a constructive scheme.

The systematized infanticide of Sparta, so far from being a recrudescence to atavism, is an advance towards civilization. A custom which had been so deeply implanted in the race by ages of barbarism, and had resisted for centuries the incessant warfare of the Christian Fathers at Rome, would not easily have been uprooted in Greece. To supersede the reckless and capricious brutality of individuals by state infanticide on a definite basis was an essential gain to humanity, however much the Spartans may have been actuated by ulterior motives.

The destiny of the new-born child is no longer decreed in the privacy of the home; it is brought instead into the Council Hall before the Elders of the tribe. If well set up and strong, it is to be reared; otherwise, doomed as useless, it is cast into the fateful chasm on the slopes of Mount Taygetus, for they hold that "it was better for the child and

^{1 &}quot; Phenom.," 123-124.

the city that one not born from the beginning to comeliness and strength should not live." 1

Selective infanticide can only rest on a physical basis; there is no speculation in latent capacity. There was no list of unhealthy geniuses in the annals of Sparta, no St. Paul, no Mohammed, no Schumann, no De Quincey. Even if selection had been less rigorous, and genius had been conceded the right to live, environment would have denied it the right to develop. Sparta, content that Athens should be the Kulturstaat of Greece, cared only that the military hegemony should be her unchallenged right.

Once infanticide had become a system, its recognition as a *pis aller* would suggest regulation of marriage. By retention of infanticide as ancillary to the Constructive Scheme, the anomalies of heredity admitted of a simple and ruthless solution.

Positive Eugenics, not only in the past, but also to-day, is based on the analogy of animal breeding. The Spartans were the first to realize the inconsistency of improving the breed of their dogs and horses, and leaving to human kind the reckless propagation of the mentally defective, the diseased, and the unfit.²

The use of analogy presents many pitfalls to be surmounted, and it is easy to see the absurdity of any conception of Eugenics as a sort of higher cattle-breeding. Full experimental control is not possible with man as it is with animals and plants. The analogy, literally accepted, would require a

¹ Plut., "Lyc.," 16. ² *Ibid.*, xv. 25.

race of supermen, or some outside scientific authority manipulating a lower stock for its own advantage. Human Eugenics, to be effective, can never be a cold-blooded selection of partners from without; it must be voluntary, and from within, resulting from a new ethical sense of the individual's relation to the social group.

In the second place, the whole world of spiritual motives lies outside the province of the breeder. He is faced with no problem of differentiation. With a clear and homogeneous ideal before him, he sets himself to its attainment, killing and preserving with simple and ruthless precision. The Spartan system was partly a literal acceptance of the analogy, partly a spiritualization. There was no cold-blooded selection of partners, and no interference with sexual attraction. The Romantic ideal was the discovery of the late Greek world under the Roman Empire, but any sentiment that existed at Sparta was as unhampered as romance to-day in the theory of modern Eugenists.

Marriage was by simulated abduction.¹ The story quoted by Athenæus of blind selection in a darkened room may be rejected as a palpable absurdity.2 The only restriction was in the matter of age³—a regulation which was the commonplace of Greek thought from the days of Hesiod⁴ to the time of

Plut., "Lyc.," xv. 15.
 Ath., "Deipn.," xiii. 553c.
 Plut., "Lyc.," 15; Xen., "Reip. Lac.," i. 7.

^{4 &}quot;Op. et Dies," 695 et seq.

Aristotle. Modern knowledge shows the influence of parental age not only upon the physique, but also upon the character of the offspring.¹

The Spartans, therefore, were, within these limits, unfettered in their choice of brides, but were punished for abuse of the liberty conceded them. There was a penalty appointed for celibacy, a penalty for late marriage, but the third and the greatest penalty was for a bad marriage.²

A further concession, the privilege only of the worthy, is seen in the compliances permitted on the part of the wife, that she might produce children for the state. So far from this practice being a recrudescence to the habits of the early savage,³ or an instance of an Aryan custom akin to the Hebrew Levirate,⁴ it seems obvious that it was a Eugenic measure suggested by the analogy of the breeder.⁵ Thus, it appears that within Eugenic limits considerable play was conceded to human personality.

It is true that the bearing of children was regarded as the essential function of women, and this view, though biologically justified, seems to ignore that other aspect of marriage—mutual assistance and companionship.⁶ But even in free Athens the ideal

¹ Mario, "Influence of Age of Parents on Psychophysical Characters of Offspring." Paper read before Eugenics Congress, 1912.

<sup>Stobæus, lxvii. 16. Vide Plut., "Lysand.fin.," p. 451ab.
Barker, "Political Thought of Plato and Aristotle,"</sup>

p. 153.

4 Mahaffy, "Greek Literature," vol. ii., part 2, p. 68.

of a Nausicaa, Penelope, or Andromache, had been superseded long since by a conception of woman which regarded her as little more than a procreative drudge. Love marriages and genuine affection were commoner in Sparta than in Athens. The conduct of Agesistrata and Kratesickleia¹ on the death of their husbands, though it is evidence at a later date, shows traces of genuine feeling. In this respect, therefore, the Spartan practice was not remote from modern ideals, but infanticide, eliminating the unfit at birth, offered a solution of the problem which we can only hope to solve by the scientific application of the principles of heredity.

The Spartan method of breeding avoided the pitfalls of analogy; their aim implied a literal acceptance. The modern problem is the selection of qualities on a basis broad enough to represent the natural differentiation of individuals and nations, the problem of a Eugenic ethnology. The Spartans, like the breeder of animals, bred for a single quality and a single uniform type. Setting life on a physical basis, regarding bodily efficiency as the only quality of use to a military brotherhood, they pursued their aim with the ruthless precision of the breeder. It was a narrow and egotistical aim, but consistent with a Constructive scheme of Eugenics which can only be maintained by eliminating undesired elements at birth.

At the same time the selection of physique has certain obvious advantages. To the Greeks, be-

¹ Plut., "Agis," 20; "Kleom.," 37, 38.

lieving only in the beauty of the spirit when reflected in the beauty of the flesh, the good body was the necessary correlation of the good soul. Though there was no conscious assertion of this relation among the Spartans, there may have been some latent recognition helping to justify their aim. Moreover, while there is no dynamometer of intelligence, physique admits of easy estimation. There is therefore a certain justification for the simple and unscientific dogma of the Spartan lawgiver: "If the parents are strong, the children will be strong."

The Spartans realized that to secure the fitness of the child it must be guarded even before birth by bestowing due care on the food and habits of the future mother. Antenatal influences explain many of the apparent anomalies of heredity, but, while recognizing the value of the Spartan aim, a nobler conception of humanity rejects their method. Sedentary occupations can no longer be assigned to slaves.1 Society still rests on a basis of lower labour. He "that holdeth the plough" must still "maintain the state of the world," but he is no longer a mere means, a living instrument, excluded from every political privilege and every social reform. The limited and aristocratic Eugenics of Sparta is amplified into a scheme which embraces every class of the community. But this extension involves fresh complexities. By state interference in various ways, such as endeavours to modify "the

¹ Xen., "Reip. Lac.," 3.

influence of the factory system on the women who would be the mothers of the next generation," we attempt to palliate where the Spartans were content to neglect.

The Spartans recognized that environment as well as heredity is a factor in the development of man. There is a scheme of physical education for men and women, and the one narrow aim was so exclusively pursued, that it was said of them that they could not even read. Modern education on its wider basis affords no parallel with the Spartan, but the bureaucratic control of the buagor, the ilarch, and the melliran, and a common centre of supervision have similarities with certain modern ideals. It is claimed that the control already established for certain classes of children, during limited periods, should be exerted over all children, and extend through the whole course of their evolution. There is to be compulsory control as well as compulsory education, and there is an institution which is to be frequented by all children, on whose development there is no effective control at home.² These methodically organized institutions, harmonizing well enough with the monistic view of the Spartan state, could never be adjusted to modern conceptions of individual right.

Apart from the question of quality, there is also the question of quantity. Modern Eugenists are

¹ Isoc., "Panath. Or.," xv. 277.

² Dr. Querton, "On Practical Organization of Eugenic Action." Read before Eugenics Congress.

faced with the problem of the diminishing numbers of the upper classes and the rapid multiplication of the lower. The Spartans were concerned with the same problem in a different aspect; this tendency, suffered to run its course unchecked, meant to them extermination by war; to-day it means elimination by disease.

The Spartans were a small immigrant band, face to face with an extensive and powerful autochthonous population—a camp in the centre of a hostile country. "We are few in the midst of many enemies" was the warning spoken by Brasidas,¹ and this position of constant danger affected the problem in two ways. There must be no falling birth-rate among the Spartans, no unchecked fertility among their subjects.

Three measures were employed to maintain the number of the Spartans: prevention of emigration,² penalties for celibacy,³ and rewards for fertility.⁴ The man with three children was to be excused the night watch, the man with four was to be immune from taxation. A third measure known to the ancient world, the enfranchisement of aliens, though adopted at times under the ancient Kings,⁵ was rendered impossible by the later exclusion of every foreigner from the land. Avoidance of moral or physical corruption was set before preservation of

¹ Thuc., iv. 126. ² Xen., "Reip. Lac.," xiv.

³ Plut., "Lyc.," 15; Athenæus, xiii. 553c.

⁴ Ar., "Pol.," 1270b.

⁵ Ibid., 1270a.

numbers.¹ The alien is a disturbing element in any Eugenic scheme.

The natural tendency of civilization, a declining birth-rate, would have brought destruction upon Sparta. Nevertheless, this attempt to maintain the numbers of the citizens seems to have met with little success. Xenophon speaks of Sparta as having the smallest population in Greece.2 Aristotle tells us that once the numbers of the Spartans amounted to 10,000: in his time they were not even 1,000, though the country was able to support 1,500 horse and 30,000 foot. The city unable to support one shock was ruined. Aristotle finds the cause of failure in the unequal division of property.3 But nowhere have attempts to interfere with the downward course of the birth-rate met with success: they were doomed to failure in Sparta as they failed in Imperial Rome. There is a moral in the tale of Plutarch, that Antiorus, the only son of Lycurgus, died childless, dooming the race to extinction.4

In limiting the numbers of the subject population, the drastic methods of the $\kappa\rho\nu\pi\tau\epsilon ia$ admitted of no failure. Infanticide was brutal, but it was set on a rational basis; this indiscriminate and covert massacre on the vague pretext of fear or suspicion, was possible only to a people not fully emerged from barbarism. On one occasion more than 2,000 were made away with, "on account of their youth and great numbers." Even Plutarch, with all his

¹ Plut., "Lyc.," 27.

² "Reip. Lac.," 1.

^{3 &}quot; Pol.," 1270a.

^{4 &}quot; Lyc.," xxxi. 25.

Laconism, censured the $\kappa\rho\nu\pi\tau\epsilon la$ as an "abominable work," and refused it a place among the measures of Lycurgus.¹

The productivity of the worst classes must be checked no less to-day in the interests of Eugenics, but not by such methods as these. We may improve their environment, so that response to improved conditions may result in a natural limitation, or with the increase of knowledge we may forbid their propagation, but the method of massacre died with the decadence of Sparta.

These inchoate Eugenics had their measure of success. The modern school of Anthropo-geography, following in the footsteps of Mill and Buckle in an older generation, would attribute to material environment their limitations and their greatness. Surrounded by discontented subjects and hostile serfs, with enemies at their very doors, and no point in the land a day's march away, it was natural that they passed their days as in a camp: shut away in "hollow Lacedæmon with its many vales," it was natural that they had no share in the progress of the world round them. But in the seventh century Lyric poetry had found a new home on the banks of the Eurotas. Terpander the Lesbian, Alcman the Lydian, Cinæthon the Spartan, show that there was a time when Lacedæmon also had cultivated the Muses. The nobles lived luxuriously: the individual was free.

The Lycurgean discipline was therefore no arbi-

¹ "Lyc.," xxviii. 20.

trary product of circumstances: it was a deliberate and calculated policy. As such, it is easy to criticize its limitations, to assert that it mistook the means for the end, that it fitted the citizen only for war, and unfitted him for peace.¹ It is wilful neglect of facts to declare that the only success achieved was the success of the disciplined against the undisciplined: that the only veneration the Spartans received was the veneration of conquerors.²

Their whole aim was narrow, calculated, and egotistic; their Eugenic system was merely ancillary to the one occupation of war: neglecting all the complexity of man's psychical nature, it aimed at the improvement of a single aspect of humanity, and that not the highest: sacrificing the Sudra caste in the interests of the Brahmins, it aimed only at the production of a breed of supermen. Nevertheless, it is clear that within its narrow confines this rude system succeeded. Sparta has been proclaimed the only state in which the physical improvement of the race was undoubted, while the chastity and refinement of both sexes was unimpaired.3 "It is easy to see," declared Xenophon, "that these measures with regard to child-bearing, opposed as they were to the customs of the rest of Greece, produced a race excelling in size and strength. Not easily would one find people healthier or more physically useful than the Spartans."4

¹ Ar., "Pol.," 1325a, 1333b. ² *Ibid.*, 1338b, 1324b. ³ Mahaffy, "Greek Literature," vol. ii., part 1, p. 201.

^{4 &}quot; Reip. Lac.," i. 10; v. 9.

The Lampito of Aristophanes, introduced as the representative of her race, shows how the Spartan women impressed the rest of Greece. Beauty, physique, self-control—these were the accepted characteristics of the type.¹ Sparta was the proverbial land of fair women.²

The direct influence of Spartan Eugenics was infinitesimal. It was an honour to have a Spartan nurse and good form to affect the rude abruptness of the Spartan manner, but no attempt was ever made to adopt their training or institutions.

There were the paper-polities of Plato and Diogenes, but their legacy to the world was only "Words and writings." The Athenians of the fifth century had nothing but contempt for the institutions of their rivals, voiced in the patriotic travesties of Euripides. Sparta was the national foe, and Sparta fell into early decadence.

Xenophon lamented that in his time the Spartans neither obeyed God nor the Laws of Lycurgus.⁵ Already, when Plato wrote the Laws, there are signs that Sparta was falling into disrepute, and the Politics of Aristotle shows an imminent degeneracy: Ares bears the yoke of Aphrodite, liberty has become licence. Agis III. attempted in vain to restore the old Lycurgean discipline, which had become a mere

¹ "Lysistrat.," 78.

² Athenæus, xiii. 566a (καλλίστας γεννώσης τὰς γυναῖκας).

³ Plut., "Lyc.," 31.

⁴ Thuc., ii. 39; Xen., "Mem.," iii. 5; Eurip., "Androm.," 597, etc.

⁵ Xen., "Reip. Lac.," xiv. 7.

shadow and a name. Kleomenes attained some measure of success, but foreign arms intervened. Nevertheless, the empty husk of the ancient system lasted with strange persistence through centuries of neglect. If the Spartan Eugenics had taken some account of those other tendencies of its earlier history, its influence on the world might have been of greater importance.

The Ancients, struck by certain obvious resemblances, believed that the Spartan constitution was in part a plagiarism of the Cretan. The laws and institutions of both countries aimed at creating a class of warriors, but in general most new things are an improvement upon the old, and the Cretans never reached back beyond the education of the youth.

The physical training at Crete may have suggested its parallel at Sparta, but its broader basis of culture belonged to Crete alone. Like Sparta, Crete endeavoured by artificial interference to regulate the growth of its population, raising its numbers by forbidding celibacy, reducing them by a curious measure which has no parallel elsewhere.³ In this matter of Eugenics, therefore, Sparta owes but little to Crete.

The constitution of Carthage was also declared by Aristotle to bear a close resemblance in some particulars to the Spartan.⁴ But there is no trace

¹ Plato, "Laws," 630 E. ² Ar., "Pol.," 1272a.

³ Ibid., 1272a. According to McLennan, the practice would be the result of female infanticide.

⁴ Ibid., 1273a.

at Carthage of any institution having a Eugenic tendency. There is infanticide, but infanticide merely as a phase of a general custom of human sacrifice.¹

There is, however, one other ancient race, amongst whom we find traces of Eugenic practice—the sturdy warriors of Germania Transrhenana, or Barbara. They were not, indeed, an utterly primitive people: of art and literature they were almost entirely ignorant; of the civilization of Greek and Italian cities they knew nothing; but they possessed a definite social organization, and a religion not lacking in nobler elements.

Unfortunately, our only authority is a writer concerned more with ethics than history, treating facts with a certain Procrustean freedom to fit a preconceived morality. History becomes the handmaid to moral contrast, and there are the errors of imperfect information, on which no light is thrown by others who have dealt with this same people.

It was a system, so far as one could judge, that relied on positive methods. "To limit the number of their children or to put to death any of the later born, they regarded as an act repugnant to human nature (flagitium). There are no rewards for the childless." Two distinct points are involved in this approbation—uncontrolled reproduction and absence of callous infanticide. At Rome, among the many excuses for exposure or infanticide recog-

¹ Diod., xx. 14; Plut., "De sera num. vindic.," 6.

² Tac., "German.," 19 and 20.

nized by custom, was the birth of a child after the will had been made.¹ This does not necessarily prove the total absence of infanticide among the Germans; it merely indicates the prohibition of the practice from callous indolence or on the grounds of superfluity. Tacitus, however, makes the same statement of the Jews, to whom, having before them the injunction to increase and multiply, the whole practice would naturally be abhorrent. Possibly, therefore, the Germans, in contradistinction to almost all ancient peoples, had refused to sanction the custom on any basis whatever.

In the matter of uncontrolled reproduction, a high birth-rate, though negatived almost invariably by a corresponding death-rate, was a natural ideal amongst a people threatened with constant depletion by the severity of military selection. Tacitus, ignorant of relativism, failed to see that the evil he deprecated in Rome was the inevitable result of the tendency which he lauded amongst the Germans.

The basis of selection was stature as well as strength. Infanticide, therefore, would have been impossible as a check on failure. Early marriages were forbidden, but instead of a penalty on the childless, we find an encouragement of celibacy.² It seems, therefore, that there was some endeavour to limit the number of children, which found no place in the Tacitean scheme of German morality.

In place of the Spartan "compliance" we find polygamy on a limited scale, conceded as a privilege

¹ Cic., "De Oratore," i. 57. ² Cæs., "Bell. Gall.," vi. 21.

only to a few "on account of noble birth." Satisfied with this regulation of nature, they paid no attention to nurture. The children grew to manhood, naked and uncared for, with no distinction between master and slave. The women, it seems, like the women of the Republic, followed their husbands into war.¹

The results of this system appear inevitable enough. We find a race conspicuous for its stature and strength, but conspicuous also for its absence of moral courage. The children, says Tacitus, reproduce the vigour of their parents, and he speaks of their stature and strength of limb as the admiration of the Romans. Their tallness is frequently a theme for comment in the "Histories." When Rome fell to the Flavianists, it was assumed that anyone of exceptional stature was a Vitellianist and a German.

But they were mere machines with no moral courage to turn their strength to account. With Spartan training to develop the raw material of inheritance, they would have been a different race. They were incapable of enduring hardships to which they had not been inured: their frames were huge, but vigorous only for attack; their strength was great for sudden effort, but they could not endure wounds. Their courage was the frenzy of the Berserk, not the disciplined valour of the Spartan hoplite.

¹ Strabo, 20.

² "Hist.," iv. 1, 14; v. 14.

^{3 &}quot; German.," 4.

^{4 &}quot; Annals," ii. 14.

In time their stature must have deteriorated. While the children of tall parents tend to be taller than the average, there is a gradual return to the mean. However severe and continuous the selection, there is a point beyond which advance cannot go.¹

The German Eugenics seem to have left no impression upon the Roman mind. Their stature and physique were attributed merely to chastity.² The German system, therefore, led nowhere in antiquity: the Spartan system led on to the theories of Plato and Aristotle.

The fifth century at Athens was an age of criticism and self-consciousness: the era of reflection had followed the era of intuition, and scepticism brought iconoclasm which shattered the ancient symbols. There were abolitionists, collectivists, social reformers in every phase, but no scheme of Eugenics till Plato. Intensity of anti-Spartan sentiment may have put such theories beyond the pale of the patriot. Social reformers could find their arguments for communism or promiscuity among Hyperboreans, Libyans, and Agathyrsi; but Eugenics was a creed peculiar to the hereditary foe. Neverthe-. less, certain aspects of the question had been for centuries the commonplace of Greek thought. Even in the proverbial stage of Greek philosophy the gnomic poets among their isolated apothegms have caught some facets of the truth.

¹ See Eugenics Review, July, 1912; Gossack, "Origin of Human Abnormalities."

² Cæs., "Bell. Gall.," vi. 21.

In Theognis there is a glimpse of the analogy between the breeding of animals and human kind and almost an anticipatory scheme of Eugenics: "We seek well-bred rams and sheep and horses and one wishes to breed from these. Yet a good man is willing to marry an evil wife, if she bring him wealth: nor does a woman refuse to marry an evil husband who is rich. For men reverence money, and the good marry the evil, and the evil the good. Wealth has confounded the race."

"His starting-point is the true one," remarks the ancient commentator, "for he begins with good birth. He thought that neither man nor any other living creature could be good unless those who were to give him birth were good. So he used the analogy of other animals which are not reared carelessly, but tended with individual attention that they may be noblest. These words of the poet show that men do not know how to bear children, and so the race degenerates, the worse ever mingling with the . better. Most people imagine that the poet is merely indicting the custom of marrying the low-born and vicious for the sake of money. To me it seems that this is an indictment of man's ignorance of his own life." 2 Lycurgus, according to Plutarch, used this analogy to demonstrate the folly of other cities where the husbands, keeping their wives in seclusion, beget children from them even if mad, diseased, or past

¹ Theog., v. 183.

² Stobæus, lxxxviii. 14 (Ξενοφωντος έκ τοῦ περί Θεογνίδος).

³ Plut., "Lyc.," xv. 25.

their prime. This was the starting-point of the Spartan Eugenics, as it has been the starting-point of the Modern: at Athens it was never more than the sententious maxim of an early poet.

The evils of disparity of age, the thought that "one must consider the ages of those who are brought together," had formed themes for Hesiod, Sappho, and Theognis. Pythagoras, it is said, had discussed the bad effects of early marriage: Solon had legislated upon it; and had dealt no less with that other recognized evil of antiquity and modern times, the mercenary marriage.

A problem that obsessed the Greeks was the relative influence of nature and nurture, of gametic and non-gametic causes. It is a question almost invariably of morals, though the dominant æstheticism of Greek thought may have reduced the problem to a single issue: "Thou art unpleasing to look upon and thy character is like to thy form."

"Most children are worse than their parents, few are better." "The evil are not wholly evil from birth, but associating with the evil they have learnt unseemly deeds." "Sometimes a noble offspring does not spring from well-born parents, nor an evil child from useless parents." But the general view

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    Cf. Stobæus, 71.
    695 et seq.
    457.
    Müller, "Fr. Hist. Gk.," ii. 278.
    Plut., "Sol.," xx. 25.
    Stobæus, xc. 9.
    Theog., 305.
    696 et seq.
    457.
    71bid., 15.
    90dyss.," ii. 227.
    11 Soph., "Tyro, Fr." 583.
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of heredity was as fatalistic as Ibsenism. No education can make the bad man good: no Æsculapius can cure the moral taint.¹ Just as roses and hyacinths do not spring from squills, so from a slave-woman no free child can be born.² Antigone of Sophocles is fierce because her father was fierce,³ just as the Brand of Ibsen was obstinate because his mother was obstinate.

Modern knowledge has justified the Greeks in attributing this dominance to heredity. Men do not gather grapes of thorns, or figs of thistles: the total contribution of environment is merely opportunity: it can only aid or retard the development of genetic character. The Greeks, except in the dramatic conception of an ancestral curse, or in the inherited pollution of ancient sacrilege, never traced causes back beyond the immediate progenitors. Galton held that the individual was the arithmetic mean of three different quantities, his father and mother, and the whole species of maternal and paternal ancestors, going back in a double series to the very beginnings of all life.4 Greek thought never concerned itself with this third and unknown datum. Mendelism has brought us back once more to the immediate parents.

Side by side with this interest in questions of nature and nurture is the dawn of that individualistic spirit, which culminated at last in egotistic

¹ Theog., 432.

³ 471.

² Ibid., 537.

^{4 &}quot;Natural Inheritance."

contempt of offspring and marriage. Heraclitus is the forerunner of Stoicism, Democritus of Epicureanism, and the negative teaching of the sophists is the precursor of that atomistic conception of society which reduced it to a mere complex of self-centred units.

If there had been any attempt to systematize these fragmentary conceptions, we should find it mirrored in the pages of Euripides. All the inconsistencies of current theory are voiced by opposing characters, every speculation that was born "in that great seething chaos of hope and despair," thesis and antithesis but no synthesis before Plato. It is the diagnosis and not the remedy which interests Euripides.

There is the question of the marriage age. baneful thing to give one's children in wedlock to the aged. The aged husband is a bane to the youthful wife.2 No less is it an evil to wed youth to youth, for the vigour of the husband endures for longer, but a woman more quickly fades from her prime.3

There is the denunciation, too, of mercenary marriage. Those who marry for position or wealth know not how to marry.4 Nature endures, wealth is fleeting.⁵ Is it not therefore the duty of the man. who takes good counsel, to marry the noble, and to give in marriage among the noble, and to have no desire for an evil wedlock, even if one should thereby

^{1 &}quot;Fr." I (Phœnix). ² "Fr." 2 (Dan.).

^{3 &}quot;Fr." 8 (Æol.). 4 "Fr." 16 (Melanippe); "Elec.," 1096.

^{5 &}quot; Elec.," 941.

win a wealthy dower? There is much discussion of the relative influence of heredity and environment.² Is it not wonderful that poor soil, blest with a favourable season from the gods, bears corn in abundance, whilst good soil, deprived of what it should have received, yields but a poor crop, yet with human kind the worthless is always base, the noble never anything but noble? Is it the parents who make the difference, or the modes of training? And the answer of the ancients was that "Nature is greatest."4 How true the old tale that no good child will ever come from an evil parent.⁵ The opinion that children resemble their parents is oftentimes proved true.6 Noble children are born from noble sires, the base are like in nature to their father.7 If one were to yoke good with bad, no good offspring would be born; but if both parents are good, they will bear noble children.8 Nevertheless, mortal natures are complex things; a child of no account may be born of a noble sire, and good children from evil parents,9 but no education can transform the bad child of evil stock.10 The fairest gift that one can give children is to be born of noble parents.11 "I bid all mortals beget well-born children from noble sires." 12 And the well-born

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      1 "Androm.," 1279 et seq.
      2 "Elec.," 941.

      3 "Hec.," 592 et seq.
      4 "Fr." 12 (Phœnix).

      5 "Fr." 15 (Dictys.).
      6 "Fr." 10 (Antig.).

      7 "Fr." 7 (Alcmæon).
      8 "Fr." 9 (Meleager).

      9 "Elec.," 368.
      10 "Fr. Incert.," 38.

      11 "Herac.," 298.
      12 "Fr." 17 (Antiope).
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man is the man who is noble in character, not the unjust man, though he be born of a better father than Zeus.1

Nevertheless, it remains a duty to educate one's children well.² Specialized athleticism is as baneful as over-refinement. You cannot fight an enemy with quoits, nor drive them out with the fist. Though war is an evil, military training is an advantage to youth.3

Euripides reflects no less the growing cynicism of the age, abusing women, praising celibacy, denouncing the cares and anxieties of bringing up children.4 There is something, too, of the philosophic egotism of Marcus Aurelius: if you marry, your children may turn out evil; if they are good there is the fear of losing them.⁵ But in the "Ion" he speaks with the voice of the old Athenian morality: "I hate the childless, and blame the man to whom such a life seems good."6

There is one passage which served as a text for Plutarch's treatise on Education, and might serve no less to-day as a text for Modern Eugenics:

> όταν δὲ κρηπίς μη καταβληθη γένους δρθως, ανάγκη δυστυχείν τους έκγόνους.7

Aristophanes also reflects all the foibles and ob-

^{1 &}quot;Fr." 11 (Dict.). ² "Supp.," 917.

^{3 &}quot;Elec.," 388; "Med.," 295.
4 "Med.," 1030; "Alc.," 238, 885 et seq.

⁵ Marc. Aurel., ix. 40; "Fr. Œnom.," 2; "Fr. Inert.," 963.

⁶ Eurip., 488; "Ion." cert.," 963.

⁷ Plut., "De Edu.," 2; "H. F.," 1264.

sessions of a sceptical age. The existence of Eugenics at Sparta, robbing the theory of something of the revolutionary aspect which it wears to-day, would perhaps have rendered it less a feature for debate than community of wives or women's rights.

Nevertheless, if Eugenics had ever taken a prominent place in Athenian thought, it would have furnished a richer mine of parody than the fantastic obscenity of the Ecclesiazusæ. It is commonly held that Socrates suggested all the thought and philosophy of the succeeding centuries. We should expect, therefore, to find some cartography, as it were, of Eugenics paving the way for the fuller imaginings of his pupil Plato. If we regard Xenophon as the only trustworthy source for the oral teachings of Socrates, we may seek in the "Memorabilia" for these earlier adumbrations.¹

We find the old question of nature and nurture, and with it an attempt to solve the problems of heredity. How is it, asks Hippias, "that parents of good stock do not always produce children as good"? To put the dilemma in a modern form, Why is it that personal value is not necessarily the same as reproductive value? And the answer which Socrates suggests is an answer which has been given to the same question to-day. Good stock is not everything; both parents must be equally in their prime.² "The apparent anomalies which children present in not reproducing the qualities of their

¹ Vide Zeller, "Socrates and his School," p. 100.

² " Mem.," ii. 4.

parents only serve to reveal the presence of particular conditions, and among those conditions must be included the changes which organism undergoes by reason of advancing age." 1

There are other conditions also. Eugenics begins earlier than birth; the unborn child must be protected by bestowing due care on the future mother. A man, says Socrates, has a twofold duty: towards his wife, to cherish her who is to raise up children along with him, and towards children yet unborn, to provide them with things which he thinks will contribute to their well-being.² The fatal handicap may have already begun in the starving or overworking of the mother.

But congenital eieţia must be emphasized by education: Socrates is deeply impressed with the evils of its neglect both on the physical and spiritual side. The Athenians, not content with neglecting a good habit, laugh to scorn those who are careful in the matter. When will the Athenians pay strict attention to the body? While Euripides denounces the baneful effect of the great athletic festivals, Socrates laments the indifference which could produce an Epigones.4

It is no æsthetic view of morals which makes Socrates insist on the need of physical training: he is concerned rather with the effect of ill-health upon

¹ Marro, "Influence of Parental Age." Paper read before Eugenics Congress.

^{2&}quot; Mem.," book 2, chap. ii.

³ iii. 5. ⁴ iii. 12.

the mind: the reasoning powers suffer atrophy: ill-health may expel all knowledge from a man.¹

There must be moral education no less than physical training. "Corruptio optimi pessima" is the warning of Socrates as well as of Plato.² The youth with the best natural endowments will, if trained, prove superlatively good. Leave him untrained, and he will become, not merely evil, but degenerate beyond hope of reclaim. The very magnificence of his character makes it impossible to restrain him.

In the Socratic treatment of Eugenic questions there are traces of that individualistic spirit which, neglecting social aspects and regarding only personal consequences, led on in logical succession to abnegation of marriage and offspring. It is not mere momentary desire, says Socrates, which influences human beings in the production of children; nothing is plainer than the pains we take to seek out wives who shall bear us the finest children.³

And the penalty for error is the penalty, not of human, but of Divine law. What worse calamity can befall a man than to produce misbegotten children?⁴ And so with training: because the city has instituted no public military training there is no need to neglect it in private.⁵ No demonstration of a self-incurred penalty is likely to appeal to the degenerate or feeble-minded.

Xenophon was a man of timid and commonplace

mind, and reported nothing he could not comprehend. We may suspect from Plato that much of the Socratic teaching has been lost, but if there had been any fuller systematization of Eugenics, it is improbable that the Philo-Laconist Xenophon would have failed to leave a record.

Critias, the pupil of Socrates, seems to have advocated something like a Spartan system of Eugenics. "I begin with man's birth, showing how he may become best and strongest in body, if the father trains and undergoes hardship, and the future mother is strong and also trains." But a complete development along Spartan lines begins with Plato, and Socrates led not only to Plato, but to Cynic and Cyrenaic individualism.

Nevertheless, the incivism of the Cynic, bringing with it the belief in a self-centred and isolated self, never involved, like the later asceticism, the entire uprooting of all sexual desire. The wise man will marry for the sake of children, associating with the most comely.² Antisthenes employed analogy from animal life, but it served only to point the cry of abandonment of cities and civilization, and return to the simple and primitive. The Cyrenaic no less is $\kappa \delta \sigma \mu o \nu \pi o \lambda i \tau \eta s$, and equally an egotist; but complete negation of social duties and actualization of despair was only possible when Greece had lost for ever the ideal of the city state.

Sparta conceived the first system of practical

¹ "Krit. Müller. Fr. Hist. Gk.," ii. 68.

² Diog., ii.

Eugenics; the first formulation in theory belongs to Plato. Archytas of Tarentum, Phaleas of Chalcedon, and Hippodamus, the Haussman of the Piræus, may have anticipated the Platonic communism: the Platonic Eugenics is based on no Utopia, but on a living and successful community. The scheme of the Republic, though it owes a little to contemporary thought, something also to contemporary science, is most of all a speculative development of the Spartan system. In this respect one cannot speak of the Platonic Republic as the perfection of the laws of Lycurgus; nor can it be truly said that if Lycurgus had only put his scheme in writing, it would have appeared far more chimerical than the Platonic.2

On the negative side there is infanticide, and approval of the practice of destroying life in the germ. As in that other question of slavery, there are signs that Plato, from his speculative Pisgah, had glimpses of a higher humanity. But he succeeded only in formulating an ineffectual compromise which retained the same evils under another name. Concealment of the newborn child "in an unknown and mysterious hiding-place" is still infanticide.

In an earlier passage copper may rise to silver, silver to gold, and the copper-child of golden parents may be degraded to its own class.3 This is a higher ideal than that of Aristotle, whose slave, the hope-

Montesq., "Esprit des Lois," vii. 16.
 Rousseau, "Émile," 1.

less product of heredity, can never shake himself free from the trammels of his birth. So to-day Eugenists have recognized that in the mass of men belonging to the superior class one finds a small number of men with inferior qualities, while in the mass of men forming the inferior classes one finds a certain number of men with superior characters. It is suggested that between these two exceptional categories social exchanges should be made, allowing the best of the lower stratum to ascend, compelling the unadapted who are found above to descend to their own level.¹

But the Platonic dialogues, and on a higher scale the concise lecture notes of Aristotle, are not the mere exfoliation of a finished product of thought, but a gradual development. One idea devours another: there is thesis and antithesis, and the final synthesis, if achieved at all, is found at the end and not at the beginning. When Plato came to formulate a positive scheme of Eugenics, his Spartan model seemed to show him that infanticide in some form was inevitable, when there was no knowledge to control the vagaries of nature. It was the ancient. solution of the problem of heredity, and is still the solution of the breeder who "breeds a great many and kills a great many." So the issue of inferior parents and defective children born of good stock are to be "hidden away." Concealment is the

¹ Cf. Professor Niceforo, "Causes of Mental and Physical Characters in Lower Classes." Paper read before Eugenics Congress.

Platonic euphemism for infanticide. Men and women, past the proscribed age, are to do their best to prevent any offspring from seeing the light: if they fail, they are to dispose of their issue on the understanding that it is not to be reared.¹

Plato's critics from the days of Aristotle have concerned themselves with the position of his third class, but in no long period of time this class would have suffered total extinction. Plato solved one problem to raise another. Like the primitive tribes, who, slaughtering every child that was born, were compelled to steal the children of their enemies, Plato, by eliminating the offspring of the lower class, would have forced his guardians to steal their men of copper from their foes. A community needs its lower classes, just as the body needs its humbler organs: subordinate to all, these men of copper are yet the most necessary of all. In his anxiety to breed a race of Eugenes, Plato removed the conditions which made their existence possible. While the children of the lower classes are to be eliminated at birth, nature would have eliminated the children of the upper classes. Plato's pens would have been as fatal as the crèches of Paris or the Foundling Hospital of Dublin.

Besides infanticide there are other methods for dealing with certain types of the unfit. The Platonic theory of medicine is a recurrence to the practice of the primitive savage, who, under pressure of want or war, abandoned the aged and infirm, and left

them to die of exposure or starvation. Plato would leave the valetudinarian to die because he is incapacitated from fulfilling his appointed task, and will beget children in all probability as diseased as himself if his miserable existence is protracted by the physician's skill.¹

Herodicus is useless both to himself and to the state, for chronic ill-health, as Socrates taught, reacts upon the mind. It is no part of the physician's task to "pamper a luxurious valetudinarianism": the art of Asclepius is only for those who are suffering from a specific complaint. So the chronic invalid will be left to die, even if he be richer than Midas.

There are two types whom Plato would condemn to natural elimination—the victims of constitutional ill-health, and the victims of self-indulgence.² Refused medical aid, they are allowed to linger on, but there is no hint of segregation or custodial care to exclude them from parenthood. Under the later Eugenic scheme it is clear that the offspring of any such unions would have been ruthlessly exterminated: there was no place in the Platonic Republic for the "unkempt" man, glorying in a pedigree of congenital ailment.³ To-day the limitations of our knowledge render restrictive measures possible only in the case of the feeble-minded.

But apart from the physical degenerate, there is the moral degenerate, no mere encumbrance to society, but an active force for evil. No law of

¹ "Rep.," 407.
² *Ibid.*, 408.

³ Theophrastus, 19 (πεοί Δυσχεοείας).

nature operates for his elimination; therefore, like the lower desires of the soul which cannot be tamed to service under the higher self, his growth must be stopped. Society has no course but to put him out of the way.¹ The modern treatment of the morally incurable is humaner than the Platonic, yet lacking in humanity. We pity degeneracy when it takes the form of disease, but when it takes the form of immorality or crime we blame and we punish. The habitual criminal is no less a victim of heredity than the prisoner in Erewhon, "convicted of the great crime of labouring under pulmonary consumption."²

Plato bases his constructive scheme on that analogy of the breeder which has formed the premisses, latent or confessed, for all Constructive Eugenics from the days of Lycurgus. "What very first-rate men our rulers ought to be," says Socrates, "if the analogy of animal holds good with regard to the human race!" Glaucon, accepting the analogy literally and without limitation, justifies the harshest strictures that have been levelled against any such conception of Eugenics. In the Platonic Republic, though not in Sparta, there is a race of supermen, the breeders of the human kingdom, arbitrarily interfering with natural instinct in order to produce a noble stock. Plato, recognizing that even in Greece there were limits set to the sphere of the

^{1 &}quot;Rep.," 410a.

² Samuel Butler, "Erewhon," p. 72. Cf. Bateson, "Biological Fact and Structure of Society," p. 19.

³ " Rep.," 459.

legislator, and unable to appeal to the cogency of assured knowledge to support his philosophic imperatives, resorts instead to childish subterfuge, "an ingenious system of lots."

But compulsion, or guidance, however veiled, is foredoomed to failure in the case of an institution which can only rest on inclination or an innate sense of duty. Moreover, "custom is lord of all," and custom can only be modified gradually and in the course of centuries: it is only the thinnest surface layer with which the legislator can tamper. No social reform or political progress can be effected by the arbitrary creation of institutions to which there are no answering ideas: external coercion with no correspondent reaction can achieve no permanent good. The basis of law is subjective. Modern Eugenists have recognized that, if there is to be Eugenics by Act of Parliament, the Eugenic ideal must first be absorbed into the conscience of the nation.

The Spartan system of "compliances" is developed into a system of temporary marriages instead of the polygamy of the Germans. The best of both sexes are to be brought together as often as possible, and the worst as seldom as possible. Greater liberty is to be allowed to the brave warrior, but a liberty within restricted limits, and the concession is not for the sake of the individual, but for the good of the state. Plato is the slave of his analogy.

As at Sparta, there is regulation of the marriage age, a commonplace of contemporary thought, and therefore an inevitable feature of any Eugenic

system. The parents must be in their prime of life: this period is defined as twenty years in a woman, thirty in a man. A woman may bear children to the state till she is forty; a man beginning at twenty-five, when he has passed "the first sharp burst of life," may continue to beget children until he is fifty-five. For both in man and woman these years are the prime of physical as well as of intellectual vigour. In Sparta we hear of no definite regulation concerning those who have passed their prime, beyond exclusion from child-bearing. Plato's treatment of the problem is "the only point in this part of the Republic which is in any sense immoral, and a point upon which modern ethics may well censure the highest Greek morals." 1

As to that second problem, the selection of qualities to breed in, Plato, like Sparta, chose physique, but chose it because he believed that soul depends on body, matter conditions mind. There is no fairer spectacle than that of a man who combines beauty of soul and beauty of form.² Physical and intellectual vigour ripen simultaneously. Modern Eugenists no less hold it a legitimate working hypothesis that the vehicle of mental inheritance is at bottom material.³ There is a further requirement that parents should as far as possible be of similar nature.

¹ Mahaffy, "History of Greek Literature," vol. ii., part 1, 200.

² "Rep.," 402.

³ Eugenics Review, July, 1912; Cyril Burt, "Inheritance of Mental Characters."

There is no mention in the Republic of that care for the future mother which was a feature of the Spartan system. But there is a twofold scheme of education adapted for the development of other qualities than the merely physical, the first an eykuklios maidela diverging little from the customary education of the day, and then that second formulation which was to culminate in the knowledge of the good itself. Once he had shaken himself free from the military ideals of Sparta, Plato, concerned no longer to write a tract for the times, ends by building an ideal city where only gods or sons of gods could live.

In this scheme of education it is recognized that environment no less than heredity plays a part in the development of the individual. The banks of the stream must be cleansed as well as its source. Good environment, καλή βοτάνη, is the keystone of the Platonic system; its essence is "nurture." The young citizen is like an animal at pasture; from the things all about him he assimilates good and evil, and what he gathers from his environment becomes embodied in his character. A gifted soul in vitiated surroundings is like a rare exotic sown in unfavourable soil; gradually losing its true nature, it sinks at last to the level of its surroundings. But after all "Nature is greatest." There are lower desires which no good influence can ever spiritualize. Education can only turn to the light the intrinsic capacities of the soul.

The relative influence of these two factors has been

expressed in much the same terms to-day. Men have a considerable capacity for being moulded by environment, no small susceptibility to the influences of education and early training. But these influences operate in a circumscribed sphere. There is in the brain at birth a proclivity towards certain directions rather than others: to this original inherited capacity environment can add nothing: it can only develop or frustrate it. The Socialist who contends that all men should and might be made equal would find no friend in Plato any more than in modern Eugenists.

Finally, there is the question of the regulation of the numbers of the state "to prevent it becoming too great or too small."1 The Spartan problem was preservation of numbers; the problem of the Republic would have centred about this same aspect in an even greater degree. In a state where the best children were foundlings and the rest were eliminated at birth, the infantile death-rate would have more than counterbalanced any rise in the birth-rate. Moreover, among the adult population there are other factors working for elimination-"wars and diseases and any similar agencies." Military selection is essentially anti-eugenic: not only does it extinguish the best elements of the state, but it removes from the reproducing part of the population large numbers of the selected. Disease, though more the resultant of the crowded conditions following on modern urbanization, found

its hecatomb of victims even in ancient times. Plato, aware of the ruthless waste of life which attends on Nature's process of elimination, was blind to the tendencies of his own short-sighted scheme.

Obsessed by the idea of the mean and a mystic doctrine of numbers, he would fix the number of the state at an unalterable 8,000. To attain this static equilibrium the guardians are to regulate the number of marriages. The elimination of the lower class by infanticide saved Plato from the needs of a $\kappa\rho\nu\pi\tau\epsilon la$, but the alien is neither expelled nor encouraged; his existence is forgotten. There is little doubt that in no long period of time the Platonic guardians would have been faced with the grave problem of depopulation.

It is recognized to-day that it should be the endeavour of social organization to secure the "optimum" number, and not the maximum number. "To spread a layer of human protoplasm of the greatest thickness over the earth—the implied ambition of many publicists—in the light of natural knowledge is seen to be reckless folly." But there is a natural tendency which limits the numbers of the population to the energy-income of the earth. Among the intelligent classes of a civilized community it is effected by control of reproduction; among the lower classes the same equilibrium is

^{1 &}quot;Rep.," 460.

² Bateson, "Biological Fact and Structure of Society," p. 21.

brought about by a differential death-rate. The Platonic aim was justified biologically as well as from the economic point of view, but his methods were mistaken.

Legislation would have failed in the Republic as it failed in Sparta and Imperial Rome.

Selfish and parochial as the Spartan, the Platonic Eugenics is more an academic dream than a practical method of amelioration. Yet it was an essential step towards progress when Eugenics, divorced from militarism, found a place for the intellect of the philosopher King beside the physique of the warrior.

From the Republic we pass to the "Politicus." A work intended as a "metaphysical exercise in the art of differentiation" has merely a parenthetic concern with Eugenics. We find, however, a brief and fantastic adumbration of a constructive scheme.

In the Republic selection was on the basis of physique and similarity of character; in the Politicus Plato's aim is the fusion of contrasted temperaments. Rightly recognizing that the law of sexual attraction is "like to like," he would yet set himself in opposition to the simple psychology of the lover.

In the Protagoras Socrates had maintained that there was only one virtue; in the Politicus Plato asserts not only a partial opposition between distinct virtues, but a similar opposition pervading art and nature. It is the royal art to weave a state of

¹ "Polit.," 310. Cf. Havelock Ellis, "Studies in Psychology of Sex," vol. iv.

one texture out of the warp and woof of human society. Courage wed to courage through many generations culminates in insanity: the soul full of an excessive modesty mated to a similar soul becomes in the end useless and paralyzed. Therefore opposite must be wed to opposite, so as to effect a fusion of characters in the child. Content to lay down principles, Plato makes no mention of the means by which he would achieve his end.

The Platonic hypothesis of fusion finds no verification in Mendelism. The most noticeable point in human inheritance is the frequency with which children resemble one parent to the apparent exclusion of the other. The phenomena of "coupling" and "repulsion," of dominant and recessive characters, under the present limitations of our knowledge, render impossible, even if desirable, any attempt to interlace the warp and woof of society more Platonico. The well-attested fact of dichotomy in human inheritance would effect the complete reversal of Plato's aim.

From the fantastic laconism of the Republic and the visionary parenthesis of the Politicus we pass to the palinode of disillusioned senility, the Laws. Like Lear, Plato has brought up ungrateful children, and they have turned against him. An Athenian ideal supersedes the Spartan; he would show that his principles are perfectly consonant even with Athenian ideas; he would modify them till they came within the scope of practical action, building a "City of Cecrops" in place of his "City of God."

Yet in the background there are still traces of his old ideal. As in the Politicus, the aim of marriage is to be the combination of opposites. "Children," says Apuleius, "are to be conceived in the seed-bed of dissimilar manners." The headstrong must mate with the prudent, and the prudent with the headstrong, tempering their natures as wine is tempered by water. But not only is there to be a fusion of characters, there is to be a combination also of status and income: the rich must not marry the rich, nor the powerful the powerful. This triple basis of selection, with the infinite perplexities it involves, is the reductio ad absurdum of the Platonic thesis of fusion.

Modern Eugenists, faced with the difficulties of selection, have attempted to infer the aptitude of individuals from their social and economic position.

This would be a question of acting, so that marriages would be effected predominantly amongst the wealthy and prevented as far as possible among the poor.² But Plato was not concerned with the relation between the economic and psychophysical élite, or with proving that the former were the product of the latter. On the contrary, obsessed by the idea of harmony, he would wed the rich to the poor, the poor to the rich.

The Platonic conception of marriage implies an irrational universe. Personal inclination is to be

^{1 &}quot; Laws," 773d.

² Cf. Achille Loria, "Psychophysical and Economic Élite." Paper read before Eugenics Congress.

sacrificed on the altar of political expediency. Nevertheless, Plato recognized the power of the "myriad voices" of opinion. "In the case of marriages, births, and patrimonies he swerves from the rules laid down for the former commonwealth by making marriages an affair of individuals, and the business of the suitors themselves private." He realizes that legal compulsion in such matters would arouse anger and ridicule. Therefore, like modern Eugenists, he would trust to the power of public opinion.

The state is to be monogamous, and, as in Sparta and the Republic, there is regulation of the marriage age. A woman is to marry between the ages of sixteen and twenty, a man not earlier than twenty-five² or thirty,³ and not later than thirty-five. The period of child-bearing is to last for ten years; at the end of that period, if there are no children and the parents are free from censure, honourable divorce is to be conceded.

As at Sparta, there is to be care for the future child, set on a wider basis of science. There are times when incontinence, ill-health, moral delinquency of any kind leave their impress upon the mind or body of the offspring. Parents must bear in mind that they are handing down the torch of life to future generations.⁴

Eugenics is being studied from the point of view of medical science. Already in the Republic Plato

^{1 &}quot;Apul. Dogmata Platonis."

² " Laws," 772d.

³ Ibid., 721a, 785b.

⁴ Ibid., 776b.

had owed something to the teaching of Hippo-crates, and in this discussion of prenatal influences we may trace a further debt. "To form a child from birth to the best constitution, first of all care must be taken of the seed itself, then of food, drink, exercise, quiet, sleep, desires, and other things, all of which Plato has carefully studied."

The Modern Eugenist in such "dysgenic" influences as alcoholism finds an explanation of the apparent anomalies of heredity. All forms of degradation, physical, intellectual, moral, fall upon the degenerates who are the offspring of such parents.³ But such a system of espionage as Plato proposes is entirely repugnant to modern ideas. For the first ten years of married life the parents are subject to continual supervision.⁴ Inquisitorial methods can only achieve negative results.

The educational scheme of the Laws is a very different thing from that of the Republic. Pitched at a level which makes it possible for all, it leads to no final knowledge of the good. There are Public Infant Schools, but education is to cease after the age of six. Besides gymnastic and music, there is some training in the sciences, but the ideal is Pythagorean rather than Platonic.

Modern Eugenists lay less stress on training, not

¹ Galen., p. 875 (περί Ιατρικής και γυμναστικής.).

² Galen., "Hippoc. et Plat.," p. 465.

³ Magnan and Filassier, "Alcoholism and Degeneracy." Paper read before Eugenics Congress.

^{4 &}quot;Laws," 784b.

because their knowledge of heredity is greater, but because modern conditions curtail the opportunities of the educationist. The citizen of the Republic and the Laws had no need of "bread-studies."

No less than in the Republic Plato recognizes that education by itself cannot achieve everything. Men well educated become good men: without gymnastic and other education neither soul nor body will ever be of much account.¹ But a fortunate nature is as necessary as a good education, and those of the Athenians who become good men become good without constraint by their own natures. Only a few can achieve perfect happiness, and these are they who divine and temperate, and gifted with all other virtues by nature, have also received everything which good education could impart.²

In addition to education and heredity, Plato, influenced, perhaps, by the treatise of Hippocrates, recognizes the influence of material environment. There is a difference in places, and some beget better men and others worse. Some places are subject to strange and fatal influences by reason of diverse winds and violent heats or the character of the waters. Again, there is the character of the food supplied by the earth, which not only affects the bodies of men for good or evil, but produces the same result on their souls. But geographic environment cannot produce a given type of mind any more than education: it can only

¹ "Laws," 641c, 766a. ² Ibid., 642d, 992d.

foster or thwart heredity. It merely determines what shall actually be by selective destruction of the incompatible.

As to the negative aspect of this scheme, Plato would segregate the madman and expel the pauper. The madman is not to be seen in the city, but the responsibility rests upon the relatives, not upon the state. If they fail in their duty, the law will punish them. The treatment of the insane was a difficult problem in an age when there were no asylums.

There is another problem, also, which has assumed far larger proportions to-day owing to the growth of humanitarian sentiment and the enormous numbers of the modern state. Plato has a simple and ruthless way with the pauper. In a properly constituted state the righteous man will not be allowed to starve: there is no excuse for the beggar. "If such a one be found, he shall be driven out of the market-place, out of the city, out of the land, that the state may be purged of such a creature.1 When a city is small, there is no difficulty in maintaining the poor; such a prohibition might have been enforced without difficulty in an ancient state. We may approve of the simple thoroughness of the Platonic method, but the complexity of modern conditions has rendered its adoption impossible.

In the eyes of the Socialist unemployed and unemployable alike are the victims of the social

^{1 &}quot;Laws," 936c.

system: to the Eugenist, the chronic pauper is the victim of the germ-plasm—heredity. With increased knowledge to justify restrictions, the modern state may be purged of the pauper more slowly, but no less surely, than the Platonic state of the Laws.

Plato, moreover, recognized bodily or mental defects as a bar to marriage, though not viewing the question from its Eugenic aspect. He is concerned with the parents, and not with the children. The law does not forbid marriage with an orphan who is suffering from some defect; it merely refrains from compulsion. Modern Eugenists, concerned with classifying such defects into transmissible and non-transmissible, regard the question from a different view-point. In the matter of inspection to decide the fitness of age for marriage there is something of the idea which came to life again in More's "Utopia" and Campanella's "City of the Sun." 1

Finally, there is the question of the numbers of the population. It is no definitely Eugenic conception that leads to the limitation of 5,040: there is a certain Malthusian element, and something of a prepossession with a mystical doctrine of numbers. "The means of regulation are many," but the means of the humaner Laws are not those of the Republic. In the case of an excessive population the fertile may be made to refrain, or, as a last resort, there is "that old device," the colony. Faced with the opposite extreme, the rulers will

^{1 &}quot;Laws," 925 e and b.

resort to rewards, stigmas, and advice; but if disease or war bring devastation, no course lies open except to introduce citizens from without.1 Births and deaths must be registered, in order to make it possible to check the numbers of the population. There is no κρυπτεία, no ξενηλασία, no infanticide, though it seems that Plato would concede the practice of destroying life in the germ. It is only in the case of some such cataclysm as Plato anticipated that legislative interference with questions of quantity is justified.

Even in this endeavour to sacrifice ideals to possibilities there is still the a-priorism of the visionary. There is more humanity, more concession to the infirmities of human nature, but little that comes within the scope of practical action. Neither the legislation of the Republic nor the precepts of the Laws could have ever realized the Platonic dream of Eugenics.

From Plato we pass to Aristotle and the culminating period in the history of Ancient Eugenics. The Aristotelian scheme is almost entirely negative and restrictive. There is infanticide, but infanticide in its last phase, exposure of the imperfect and maimed, and, in the case of superfluous children. destruction of life in the germ. There is no fantastical scheme for the fusion of parental temperament, no rigid selection on the sole basis of physique.

Like Plato, Aristotle believed in the intimate 1 "Laws," 741.

relationship between psychological phenomena and physical conditions.¹ Body stands to soul in the relation of matter to form, potentiality to actuality; soul is the entelechy of the body.² Body being prior chronologically to soul, demands attention first, but only for the sake of the soul.³ Care, therefore, must be taken that the bodies of the children may answer the expectations of the legislator.

There is no need for a man to possess the physique of a wrestler in order to be the father of healthy children; neither must he be a valetudinarian nor physically degenerate. There is a via media between the extremes of specialized athleticism and physical incapacity, and it is this mean which is the desirable condition for both men and women. The valetudinarian who would have been left to die in the Republic may one day be eliminated by the humaner methods of Aristotle. There is much evidence to prove that physical weakness is a case of simple Mendelian transmission.

As at Sparta and in the states of the Republic and Laws, there is limitation of the marriage age. Aristotle recommends the difference of twenty years between the ages of husband and wife, or, more accurately, the difference between thirty-seven and eighteen. Comparison with the marriage age defined in the Republic and Laws shows that ancient

¹ "De Anim.," 402b, 8.

² Ibid., ii. 1, 412a, 28.

³ " Pol.," 1334b.

thought had decreed no definite period. Four reasons incline Aristotle to select these ages. Since the procreative power of women stops at fifty, the harmony of the union will be preserved by insuring that husband and wife shall grow old at the same period of time. The disadvantages which attend too great nearness or distance in age between father and child are also avoided. More important than all, these ages, consulting the physical wellbeing of husband and wife, afford the best prospect of well-developed children.

It is possible to approve of the postponement of marriage till eighteen, or even later; but the disparity of ages seems unnecessarily great. Aristotle, studying the results of early marriage in other cities, deplored its baneful effect on physique. Modern Eugenists point no less to the effect on the moral character of the offspring.

Like Sparta and Plato, Aristotle forbade those past their prime to rear children to the state. Marriage is thus divided into two periods, and this first period is to last for seventeen years, not ten as in the Laws. Moreover, he would fix even the season for contracting marriage, and in conformity with Pythagoras and Greek custom generally, chooses Gamelion. To-day it is held that neither the vitality of the offspring, their physique, nor their intellectual capacity, show any clear correlation with the season of birth. "There is no atavistic heritage of a special season for reproduction which the human race have originally shown

analogous to what one finds to-day in many species of animals." The married couple ought also to regard the precepts of physicians and naturalists." Aristotle, belonging to an Asclepiad family, received the partly medical education which was traditional in such families. Some of his encyclopædic writings deal with medical subjects, and he is said to have practised medicine as an amateur. This is a further stage of the tendency which had begun with Plato's debt to Hippocrates.

Care for the child is to begin before the cradle. And Aristotle insists, like the Spartan legislator, on the avoidance of sedentary occupation and the need for a proper dietary. But he is concerned not only with effect on physique, but also, like Plato, with effect on the mind.

The first seven years of a child's life are to be spent at home, not in the crèches of the Republic, nor in the public infant schools of Plato's Laws. This is to be a time of games, "mimicries of future earnest," under the charge of the inspectors of children, for Aristotle held with Plato that the majority of our likes and dislikes are formed in these early ages. Education is to run in cycles of seven years; the child is to be controlled at every period of its evolution. From the age of seven to puberty there are state-controlled gymnastics, but these gymnastics, unlike the Spartan, are merely a means to a further end—the training of reason from

¹ Gini, "Demographic Contributions to the Problems of Eugenics." Paper read before Eugenics Congress.

puberty to the age of twenty-one. After this education ceases, and the young man brings body and mind, fully developed, to the service of the state. Aristotle's scheme is merely adumbrated: there are scattered suggestions rather than coordination, and the last stage of science, which is to cultivate the reason, is never mentioned at all.

Aristotle, like the Ancients generally, recognizes the importance of both environment and heredity. There are three stages in the formation of character, nature, custom, reason: innate potentiality, environment, self-direction by the light of a principle. We are born good, we have goodness thrust upon us, we achieve goodness. Heredity to Aristotle explains the slave just as certainly as it explains those who never will be slaves; yet to admit emancipation for all slaves is to confess that there is no slave by nature without the potentialities of full manhood. It is true that some men from the beginning are fit only for that lower work on which the fabric of society must rest. The maintenance of heterogeneity is an essential condition of progress: there must always be the minuti homines at the base of things, though we have long since passed from the permanent grades of Plato, Aristotle, and the Middle Ages. Plato, indeed, at one period seems to have conceded that the man from the copper class might rise to the silver or gold, and it is at this that social reform must aim, not to abolish class, but to provide that each individual shall, as

far as possible, reach his proper stratum and remain in it.1

Like Plato, Aristotle recognizes that there are victims of heredity who can never be made good by education.² But this factor of heredity is amenable to no certain control. Helen may boast of her immortal lineage, but those who think it reasonable that as a man begets a man and a beast a beast, so from a good man a good man should be descended, these fail to see that, though such is the desire of nature, her failures are frequent.3 Nature's aim is perfection, to make this the best of all possible worlds; but there are failures because matter is not always congruous with form.4 But "Nature's defects are man's opportunities": matter must therefore be helped as far as possible to the realization of its true form by the human agency of education.

So much importance did Aristotle attach to education that, like Sparta, he would make it entirely an affair of the state. There is to be one educational authority and one sole system of education.

The laws of Aristotle are as catholic as the laws of Alfred: "the legislator must extend his views to everything." 5 Therefore his Eugenic scheme will be enforced by law. His aim is to embody public

¹ Cf. Bateson, "Biological Fact and Structure of Society," p. 33. ² "Pol.," 1316a. ³ Ibid., 1255b. ⁴ "De Cæl.," 271a, 33; "Gen. An.," iv. 4, 770b, 16.

⁵ "Pol.," 1333a.

opinion in law, not to educate opinion to such a point that law will become unnecessary.

"Every city is constituted of quantity and quality." Aristotle, therefore, no less than Plato, would fix an ideal limit to the population as well as regulate its quality. In the Aristotelian scheme, as in the Platonic, there emerges a certain Malthusian element; but it is a legal ordinance and not a natural law: it is to prevent population from interfering with the equalization of lots, not from outrunning the limits of subsistence. He conceived that Plato's plan of unigeniture made it more than ever essential that there should not be too many sons in a household, and yet, in his view, the Platonic means were insufficient. But there is also the conception of the mean, of an enclosing limit or $\pi \epsilon \rho a s$, flowing naturally from the teleological Just as a boat can no more be two furlongs long than a span long, so a state can no more have 100,000 citizens than ten.² Its essence lies in the fact that it can easily be comprehended as a whole.

Yet, though Aristotle held the State to be a natural organism, he would not concede that hypertrophy was prevented by natural laws without the need for human co-operation. It is absurd to leave numbers to regulate themselves, according to the number of women who should happen to be childless, because this seems to occur in other cities.³ Rejecting as a mere palliative the remedy of coloni-

¹ 1296b. ² "Eth.," 9, 10, 3. ³ 1265b.

zation, which Pheidon of Corinth had suggested, and Plato had kept in the background of the Laws, he insisted that a limit must be set to the procreation of children, even during a seventeen years' term. When infractions occurred—and one would imagine that under such circumstances they would be of frequent occurrence—there is not to be exposure, which is impious on the ground of superfluity, but destruction of life in the germ.

To-day limitation of numbers among the upper classes of the community is being brought about naturally by the increase of foresight and self-control. It is the lower classes whose reckless propagation constitutes the problem of Modern Eugenics. Aristotle, denying these classes the rights of citizenship, and treating them politically as cyphers, sets them outside his scheme of social reform. The number of slaves, resident aliens, and foreigners, is to be left to chance, "and it is perhaps necessary that their numbers should be large."

The Aristotelian Eugenics, therefore, are as selfish and parochial as the Spartan. As in the animal body, the homogeneous are for the sake of the heterogeneous.¹ Where Eugenics is most necessary, Eugenics is denied; the man who performs a task which ruins his body or his mind is set beyond the pale as a mere living instrument. This was the simple pre-humanitarian solution of a difficult problem. But Aristotle recognized, as Eugenists recognize to-day, that any scheme of constructive

¹ Arist., "Part. An.," ii. 1.

Eugenics must be set aside as visionary and impracticable, so slender is our knowledge of the genetic processes of man. Aristotle, finding a scapegoat in a mythological nature, abandoned the problem as insoluble: to-day we are still seeking some outline of an analysis of human characters.

The chief interest of the Aristotelian Eugenics lies in the fact that he set out to construct a scheme which should be practicable for Athens, no academic speculation in the clouds, but a possible plan of social reform. "The legislator must bear two things in mind—what is possible and what is proper. It is not enough to perceive what is best without being able to put it in practice."2 Hence careful attention is paid to popular opinion and existing custom. The consensus mundi, the collective capacity of the many, are factors the importance of which he constantly emphasizes. This "divine right of things as they are," involving a certain conservatism, led him to uphold any custom revealing after analysis a balance of good in its favour. Hence the acceptance of infanticide and slavery, and regulation of the marriage age. The doctrine of the mean also, which helped to decide the proper disposition of parents and to fix the number of the state, was an essential article of received opinion. If Athens had ever instituted a Eugenic system, it would have been the system of Aristotle, not of Sparta or Plato.

¹ Bateson, "Biological Fact and Structure of Society," p. 12. ² 1289a.

Aristotle, applying the idea of development to knowledge as well as to the objects of knowledge, not only conceived his own theories as a development of those of his predecessors, but imagined himself as standing at the culmination of Greek thought. This eschatology was justified. The Politics not only set the final seal upon political science in Greece, it marks also the last word in Eugenics.

Looking back upon these past systems, we find that the task was easier for a pre-Christian age which could sacrifice the lower classes in the interests of the higher and solve the problems of heredity by infanticide. Even when the influence of Sparta had died away and Eugenics was regarded no longer as a mere ancillary to war, parochialism confined it to a single state, inhumanity to a single class. The features which are so prominent in all these early schemes—precise limitation of the marriage age and detailed schemes of education—are features which, though still recognized, no longer have their place in the foreground of modern thought.

The Greeks were concerned more with the banks of the stream; the modern aim is to control its source. The gradual process of social reform during the first three quarters of the nineteenth century has gradually brought us farther back in the course of successive stages. From measures of sanitation and factory laws we have passed to national schemes of education. A gradual extension

of aim has led to efforts to guard the child at birth, even before birth; and, finally, Eugenics has set itself to solve the problems of heredity. The "Life-History Albums" of Galton would trace the workings of the ancestral curse, the *Ate* of inherited disease as well as of inherited sin: Mendelism would render possible a factorial analysis of the individual.

Nevertheless, though the Greeks abandoned the question of heredity in despair, and, unable to prevent its victims being born, slew them if possible at birth, they realized many of the problems which, 2,000 years later, are still confronting Eugenists, and they realized in part the remedies. It is wrong to say that antiquity never raised the question as to whether a hereditary disease or predisposition to disease should be a bar to marriage. The Spartans, Plato, Aristotle, all realized the problem, Plato returning to atavism for his remedy, Aristotle conceiving the humaner methods Modern Eugenists. Sparta and Plato, too, were not blind to the need, to-day so urgent, of restrictive measures dealing with the insane, and Plato even dreamt of segregation. There is the recognition, also, that Eugenics is the sphere of the physician as well as of the philosopher; that quantity is a factor in the problem as well as quality; that selective Eugenics must regard the psychical as well as the physical. But even that final formulation in the pages of Aristotle, which would have been possible to the age, and more possible to-day than the narrow scheme of Sparta or the unsub-

stantial visions of Plato, even these saner Eugenics have in them much that is impossible, no little that is abhorrent, to thinkers of to-day. But the idea had been given life and brought to bear. Long after the sowers had passed away it sprang to renewed existence in a different age and in a different form, engendered by new conditions.

After Aristotle stretches a gulf of years in which Eugenics lies amid the lumber of forgotten theory. The state education of the fourth century may have owed something to Plato and Aristotle, but there is no state control of marriage. Zeno and Chrysippus, influenced, perhaps, by a perverted Platonism, advocated community of wives. But Zeno taught that the intelligent man should avoid all public affairs except in a state approaching perfection; and Chrysippus, writing a treatise on the education of childhood, is reproached by Poseidonius for neglecting its first and most important stages, especially those before birth. "Poseidonius blames Chrysippus and admires what Plato taught about the formation of children while yet unborn "1

No attempt was ever made to realize the ideals of the Republic "except by dreamers and somnambulists at second-hand in an age of mysticism and social degeneration." Plotinus obtained from the Emperor Gallienus and his wife the concession of a ruined city in Campania, which had once been founded by philosophers. He proposed to restore

¹ Galen., "Hipp. et Plat.," v. i., p. 465.

it, name it Platonopolis, and adopt the laws of Plato.¹ This early anticipation of the Oneida Community never seems to have been realized.

In the "Utopia" of Sir Thomas More the marriage preliminaries, suggesting something of Plato's physical point of view, recall a passage in the Laws. But in Campanella's "City of the Sun" we find a closer approximation to the Platonic Eugenics. Marriage, recognized as an affair of the state rather than of the individual, because the interests of future generations are involved, is only to be performed in the light of scientific knowledge. The "great master," who is a physician, aided by the chief matrons, is to supervise marriage, which will be confined to the valorous and high-spirited. There is to be a system of state education, and the women are trained for the most part like men in warlike and other exercises. Campanella has been called the prophet of Modern Eugenics: he is the connecting-link between the crude Eugenics of the past and the scientific Eugenics of Galton.

There is one brief attempt at practical Eugenics, the Oneida Community of Noyes, which, outrunning scientific knowledge and the ideas of the day, raised the bitter antagonism of a public not yet fitted to receive it. Two thousand years after Aristotle Galton formulated the first scientific scheme of Eugenics.

This sudden arrest of the developing Eugenic ideal after Aristotle is not difficult of explanation.

¹ Porphyry, "Plotinus," c. 12.

Realizing only vaguely the difficulties with which modern science has encompassed the problem, the Ancients might have been expected to have cherished the ideal till actual experiment revealed these incommensurable factors. With their conception of the state as an *être moral collectif*, with their recognition of law as the sum of the spiritual limits of the people, with the favourable support of the *consensus mundi*, which Aristotle never opposed, everything seemed opportune for its realization.

But just as a good man is crushed by a bad environment, so a social theory must wither in an unresponsive age. Eugenics is dependent upon the ethical perspective; the philosophy of egotism—le culte de soi-même—finds no appeal in a theory which looks beyond the pleasure of the individual to the interests of the future race.

From Socrates to Aristotle philosophy has striven to stem the current of political dissolution, and in philosophy we see an insurgent pessimism, an evergrowing prominence assigned to the theoretic life. The supremacy of Macedon signalized the final breakdown of Greek civilization. Aristotle, standing on the border-line, found in classic antiquity an influence sufficiently strong to place the community in the foreground as compared with the individual.

After Aristotle, the tendency which had already been at work among the philosophers of the Academy and the Peripatetics completely reversed the posi-

tion. Turning aside from the ideal of man as an organic member of society, philosophy concerned itself instead with the satisfaction of the ideas of the individual.

In place of their old dead principles men required new guides: they sought and found in two directions—in Orientalism and philosophy. From Orientalism they learnt to profess complete detachment from an ephemeral world of sordid corporeal change, to contemn women and offspring, to throw aside costume, cleanliness, and all the customary decencies of life: Karma will soon be exhausted, Nirvana attained. No theory of racial regeneration can flourish in such an atmosphere of inconsequent egotism.

Epicureanism, with its watchword of "seclusion," teaching its disciples to forego marriage and the rearing of children, can have had no place for Eugenics. Equally opposed is the tendency of Stoicism, which "draws such a sharp distinction between what is without and what is within that it regards the latter as alone essential, the former as altogether indifferent, which attaches no value to anything except virtuous intention, and places the highest value in being independent of everything." 1

Such a system is not likely to concern itself with the interests of a state in which the mass of men are fools, and denied every healthy endeavour. It is true that besides this tendency toward individual independence there was a logical development of

¹ Zeller, "Stoics and Epicureans," p. 310.

Stoicism which recognized that man, to obtain his freedom, must live, not for himself, but for society.1 But it was the earlier end that continued to predominate, bringing Stoicism nearer and nearer to the selfish egotism of Epicurus. It is only in a community of wise ones that a man will marry or beget children.² A generation imbued with such philosophies would have as little thought of racial improvement as an age which found its guidance in the teachings of Schopenhauer and Hartmann.

Moreover, cosmopolitanism, consequent on the dissolution of the city state, not only brought individualism in its train, but let loose the inveterate pessimism of the Ancients. So long as the city state existed, the Greeks, forgetful of the Golden Age in the past and the inevitable cataclysm in the future, concerned themselves with the future progress of a limited race. But pessimism, linked with individualism, became a living force in a despairing age, which had never developed the evolutionary conceptions of Anaximander. Men of after generations will be just as foolish and unthinking, and just as short-lived. Neither the future nor the past matters, but only the present.³ Sooner or later all things will be transmuted again into the fiery substance from which they came. Individualism and belief in inevitable decadence were the two

¹ Cic., "Fin.," iii. 19, 64; Sen., "Ep.," 95, 52 ("membra sumus corporis magni").

² Epict., "Diss.," iii. 27, 67. ³ "M. A. Disc.," 112.

influences which effectually thwarted the growth of Ancient Eugenics.

But this philosophy of Weltschmerz is an abandoned creed. Le temps de tristesses dogmatiques est passé. Organic evolution has changed our whole perspective. We see our wills as temporary manifestations of a greater Will: our sense of time and causation has opened out to the infinite, and we are learning to subordinate the individual lot to the specific destiny.

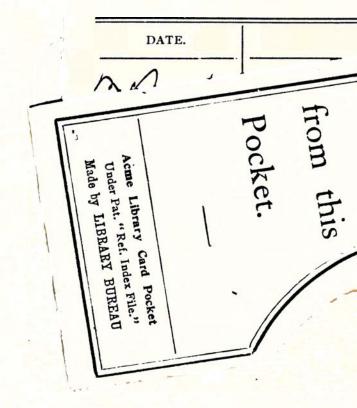
So Eugenics, ruthlessly practised in those distant ages, "when wild in wood the noble savage ran," rudely systematized, passed into the constitution of Sparta. The selfish creed of a warrior caste, even in the hands of Plato and Aristotle it never lost its parochialism, and when this narrow spirit gave way before the cosmopolitanism of subsequent philosophy, individualism, isolating human effort from a world rational only to the evolutionist, effectually checked the growth of the Eugenic ideal for centuries.

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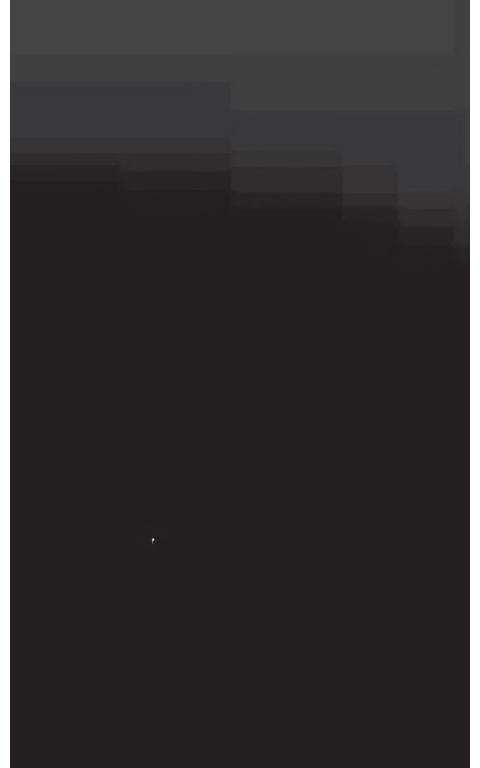
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THE RACE PROBLEM OF THE ROMAN EMPIRE

BY MARTIN P. NILSSON

THE fall of the Roman Empire is the greatest tragedy of history. States have been wiped out and peoples crushed before and since, but the fall of the Roman Empire implied also the fall of the only great and world-wide culture that existed before that to which we belong. Humanity returned to much more primitive conditions of social and economic life, not to speak of education and culture.

Different causes of the rapid disappearance of the glory that was Rome have been sought for. They need not be discussed here. There is more than one cause, and it will be difficult and misleading to reduce them to a single and common formula. That there is also a problem of the biological order was first pointed out by Professor Seeck1. His views are an outcome of the typical popular Darwinism of the time in which he wrote. The cruelty and suspiciousness of the emperors removed and killed all persons who, by their mental qualities, capacity, and energy, raised themselves above the average. Through an artificial, inverted selection independence and originality were stamped out and a servile people bred. The possibility of such a process cannot be denied but to attain to any result it would have to be carried out on a large scale and over a protracted period, since the population of the Empire is considered to have amounted to about 100 millions 2. Proportionally to this, the number of the victims of the emperors' cruelty was very small, and their extinction cannot have had any considerable effect on the stock of the population of the Empire. In reality the thesis of Professor Seeck cannot be maintained. But the problem is there, and I think that it can be approached more safely in the light of modern research.

There are great innate differences between the races of humanity: some have more natural ability than others. Sometimes it has been the fashion to deny this, and to contend that a people with all its peculiarities is the result of its environments, the *milieu*, and the

country. Facts show that this is manifestly erroneous. What was the American continent before its discovery, and what has it become since its occupation by the European peoples? The country around the Hebrus is much the same as that around the Axius, yet the Macedonians created a great empire, while the Thracians were hardly able to form a state at all, although Herodorus says that the Thracians and the Indians were the greatest peoples of his time. The natural features of Southern Italy and Sicily are very similar to those of Greece, but the original inhabitants of these countries created no culture; the Greeks brought it to them. The Greek people, not the Greek country, created the culture which is and ever will be the basis of Western civilization ^a.

The hereditary dispositions of different races are very different, although we cannot yet grasp these distinctions in detail. There are hereditary dispositions of greater and lesser value. There are dispositions which enable a people to organize a state and create a culture. In ancient times the Greeks and the Romans did this, and only they on a large scale. They were the peoples that created ancient civilization and the Roman Empire; the fate of these depended on them.

I have not here to speak of civic problems or problems of culture. It is well known that the different rights of the inhabitants of the Empire were levelled down, and that the Greco-Roman culture spread throughout all the provinces. The question was whether the Romans were to raise the provincials to their level and assimilate them with themselves or to be assimilated by the provincials, which would include a levelling down of the culture. In the first two centuries the process was in general the former, in the later centuries it was inverted. With this we must not confound the superficial diffusion of the Latin language, which at last embraced the whole of western Europe. For a discussion of this question I refer to my forthcoming book on the Roman Empire 4, and turn now to the biological problem which lies at the basis of the problem of cultures.

If the Romans were to assimilate the provincials with themselves, the foremost condition was a sufficient multiplying of their numbers, i. e. a sufficiently high birth-rate. The Romans had once before carried through a similar task on a smaller scale — the Romanising of Italy. Roman colonies were spread throughout the whole country, the Roman people multiplied in numbers, the almost unlimited supply of soldiers from the colonies gave Rome the victory over the superior genius and strategy of Hannibal. After the Social war the kindred

Oscan-Umbrian tribes, and soon afterwards the Celts of the Po valley, were merged in the Roman nation and enlarged and invigorated it. The new task, the Romanising not of a single country but of the Empire, of a world, was gigantic and needed a proportionately increasing birth-rate.

But this scheme failed. We see in our own days how the fall of the birth-rate commences in the upper classes and soon spreads down to the lower. This decline seems to be common to all high culture, at least the same phenomenon appeared among the civilized populations of the Empire, the Greeks and the Romans. As to Greece the statements of Polybus and Plutarch are well-known. Polybus says, in the middle of the second century B. C., that childless marriages were common and that the population was diminishing, although neither pestilence nor war had checked the increase. Plutarch, at the end of the first century A. D., states that the whole of Greece would not be able to raise the 3,000 soldiers that the little town of Megara had sent to the battle of Salamis.

For Rome and Italy the testimony is abundant that the birthrate declined during the earlier years of the Empire. In the country the decline reached back into the Republican age, and was connected with agrarian problems. The class of small farmers, from which Rome had once drawn her irresistible armies, was expelled by the formation of great estates cultivated by slaves. This is once of the best known features of that age.

The bonds of matrimony were slackened, the birth and education of children were felt to be burdensome. In ancient times the parents had a right to expose children whom they did not desire to educate. Where the supply of food is scarce among primitive peoples this may be excused. Among a civilized people, when economic egotism has obliterated the natural feelings of the parents, it is nothing but legalized infanticide. This stain on ancient culture, however, did not have any considerable influence on the number of the population. of the exposed babies were picked up by slave-hunters; they lived, though in the debased condition of slaves. A more important feature was that the educated classes were decimated in this manner. The ancients also knew other less revolting means of checking the birthrafe, the effect of which may safely be supposed to have been much greater. These expedients are often mentioned in the medical literature of the period, and many seem to have looked on them as some extreme feminists do to-day 5.

A curious circumstance shows how common childlessness was among the upper classes. This was the competition for inheritances, which the moralists satirized and thundered against in vain. It was not only a literary commonplace but a very real evil. The philosopher Seneca writes to a mother who had lost her only son that in these times childlessness contributes to the importance of a person rather than deprives him of it. Even the legislation was put in action against the annoyance ⁶.

Much more important are the legal means used to raise the birth-rate. The first emperor, Augustus, in spite of an embittered resistance, enacted the famous laws which enforced every Roman of noble birth between 25 and 60 years to be married, or at least engaged. The irony of fate willed that both the consuls who gave the law their names were unmarried. Parents of three and more children had valuable prerogatives, especially in regard to the higher offices in the state. Unmarried persons were deprived of the privilege of visiting the circus and the theatres and could not receive legacies, childless legatees were deprived of half their inheritance. These means were more drastic than any that have been imagined in our times, but they were of no avail.

The decline of the birth-rate begins in the upper classes, and Augustus had perhaps thought that if it could be checked there the example would influence the lower classes. But he also tried to support poor families with a flourishing crowd of children. He used to present them with 1,000 sesterces for every child. An inscription of the small town of Atina in Latium recounts that a certain BASILA has given to the town a fund of 400,000 sesterces in order that the children of the inhabitants may receive corn for their food and at the age of puberty a sum of 1,000 sesterces each to set them up in life. This is the first example of the means by which the emperors later on tried to raise the birth-rate of the people in Italy. In reality it is liberating the parents from the cost of feeding the children and transferring this to public funds. The emperors Nerva and Trajan in particular carried out this scheme on a large scale, and patriotic private persons helped them with great gifts. PLINY the younger, for example, gave half a million sesterces to his native town of Comum for this purpose. The later emperors of the second century vigorously carried out the work and created a staff of supervising officers 8. It must be acknowledged that those in authority recognized the evil and did their utmost to check it. In proportion to the finances of the time, the use of these funds which were destined to raise the birthrate of the Roman population is the greatest social measure that history records. It failed, however. In the hardships of the third century the funds diminished and finally disappeared.

In some cases it is possible to show whence the men came who took the places of the Roman elements of the population. The old Roman nobility had been severely dealt with in the proscriptions at the end of the Republic. Augustus tried earnestly to save what was left, but without success. The old families died out in the first century A. D. o. The correspondents of PLINY the younger do not bear the old famous names. In their stead provincials enter the senate, at first from the most Romanised provinces, Southern Spain (Baetica), South-East France (Gallia Narbonensis), later on from Africa (Tunis), and Asia Minor. The first consuls who originated from Spain appear in the last years of the Republic and were followed by several others during the first century A. D., the first consul from Gallia Narbonensis is found in the reign of Tiberius, the first from Africa and Syria in the reigns of VESPASIAN and DOMITIAN respectively. From TRAJAN onwards even the emperors were provincials. TRAJAN andhis successor Hadrian were Spaniards, Antoninus Pius belonged to a Gallic and Marcus Aurelius to a Spanish family, Septimius Severus was a native of Africa, his successors were Syrians. It was difficult for a man belonging to the Greek portion of the Empire to attain a high position, because a knowledge of Latin and Roman law was needed for this, and such a knowledge was not common in the East, which prided itself on its own ancient culture. Nevertheless after the reign of Hadrian numbers of Orientals appear in high places; the western world seems almost to be worn out.

The army was not great in proportion to the population of the Empire — in the first two centuries about 300,000 men, while the inhabitants of the Empire are considered to have amounted to 70—100 millions — but it played a very important part in the shifting of the population. In the order created by Augustus half the army, the legions, was to be recruited among the Roman citizens, the other half, the so-called auxiliary troops, among the provincials, who after their discharge received the citizenship. In this manner many provincials and their descendants became Roman citizens. Augustus determined that the legions were to be recruited from Italy and the oldest colonies of Roman citizens in the provinces, and the élite troops — the praetorians — from certain districts of middle Italy, which had pre-

served the purest Roman blood. This principle, however, could not be maintained. In the first century more and more citizens from the provinces penetrated into the legions, and recruits from all parts of Italy were found among the praetorians. The old recruiting districts became more and more deficient. HADRIAN inverted the principle as to the recruiting of the legions: from his time they were recruited from the districts where they camped, i. e. the borders of the Empire, where civilization, except for what was brought by the army, was at its lowest. Septimius Severus dissolved the old Italian body of praetorians and created a new one recruited from the legions. In this manner the army was barbarized and in the third century the way to any leading post was through the army 10. From the time of Maximinus Thrax the emperors were barbarians, many of them Illyrians; in all probability they belonged to the refractory people that we know in our time as Albanians. They turned the Empire upside-down in the third century, but the vigour of these emperors did at last create order. The lack of recruits, however, was not due entirely to the diminishing number of the civilized population: here the deep-rooted pacificism of the age also made itself felt; but it vigorously contributed to the immixture of barbarians and provincials in the governing classes. From the time of Diocletian the best bodies of troops were recruited from the Germans within and without the borders of the Empire.

The mixed character of the population of the capital is attested by many ancient authors. We can hardly imagine the extent of the admixture; only Constantinople, the most cosmopolitan city of the world, can give us an idea of it. Cicero calls Rome a city created by the confluence of the nations, four centuries later the emperor Constantius wondered at the haste with which all the peoples flowed together to Rome. Lucan, the poet and friend of Nero, says that Rome was populated not by its own citizens but by the scum of the world. The Oriental element seems to have been very conspicuous. A famous passage in Juvenal states that the poet cannot like this Graecised Rome, but that the least part of the scum is composed of Greeks: the Syrian Orontes has flowed into the Tiber, with foreign languages and foreign manners.

The Jewish population was considerable. In the year 4 B. C. it is said that 8,000 Jews accompanied a deputation to the Emperor. Tiberius turned them out and deported 4,000 to Sardinia, but when CLAUDIUS some years later wished to do the same, they had become

so numerous that the plan could not be carried out. In the eastern provinces the Jews were very numerous, in Egypt they are considered to have amounted to the eighth or seventh part of the population, in Cyrenaica and Cyprus they were killed by hundreds of thousands in the pogroms, in Asia Minor and Southern Italy they were numerous, in Africa, Spain, and Southern France not few. But after the fall of Jerusalem and the great rebellion in the reign of Hadrian the Jews separated themselves from the rest of the population; hence their importance in the mixture of the races was not so great.

In ancient times the Jews were not merchants and bankers as now. This position was occupied by the Syrians. In the last two centuries B. C. we find many Italian merchants in the East. They were especially bankers and slave- and corn-merchants, and their trade depended on the power of Rome. But when the abuses in the provinces were repressed by the emperors, the Italians disappeared and their places were taken by the provincials. The real merchants were the Syrians, who had important factories in Italy and who appear in every province. They were 'numerous e. g. in Gaul, where even in the sixth century they were organized into separate Christian churches, at least in Paris and Orleans. Salvian mentions the hosts of Syrian merchants who have inundated all the towns and think only of lies and falsehood. The merchants of Italy were not Romans by birth. They were enfranchised slaves, who in this manner had obtained the citizenship 11.

The enfranchisement of slaves is a very important cause of the alteration of the population; it took place on a large scale. It was a point of honour for a noble or wealthy Roman to enfranchise his slaves, at least when he made his will. Augustus regulated the enfranchisement. The number of slaves which it was permitted to enfranchise was regulated according to the number of slaves which a man possessed, but was in no case permitted to exceed one hundred. The freedmen were in a socially inferior position, but their descendants attained the full citizenship and their grandsons might even become senators. A discussion that took place in the senate in the reign of Nero is very illuminating. It was said that the enfranchised slaves were numerous, they crowded the tribuses and the inferior positions in the state, most of the knights and many of the senators were descendants of freedmen. If the freedmen were turned out, there would be a lack of free citizens.

The freedmen formed a very important part of the population in the earlier centuries of the Empire. It is a burning question whence they originated. A preliminary matter is, which slaves were enfranchised? Those, naturally, who personally attended on their masters and had charge of his business. The slaves of the farms were not valued much more than the beasts of burden and had little better prospect of being enfranchised. For attending on the master and managing his business no mere barbarians were fit; some civilization, such as was found among the able Orientals, was required.

An examination of the statements of the inscriptions concerning the nationalities of the slaves shows that this is true. They corroborate the old saying that the Syrians were a people of born slaves. Most numerous after the Syrians are the Graecised inhabitants of Asia Minor and the Jews. More than half the workers of the Italian potteries have Greek or Oriental names 12, and the names of the artisans of other crafts convey the same impression. Next in numerical importance come the Egyptians and Ethiopians, but in the case of these peoples the external differences were so great that they never became so perilous as the other races mentioned. In Europe no people was predestined to slavery, although some, but not many, slaves originated from European countries. The barbarians of Europewent into the army instead. For instance only two Pannonians are mentioned as slaves, but men of this race crowded into the army 13. The importation of slaves and the enfranchisement brought in Orientals more especially, and to this fact is largely due the orientalism which is a prominent feature of the later Empire.

There is yet another source for the alteration of the folk-stock, which did not have such an immediate effect as the enfranchisement of slaves but which must in the end have been of considerable importance, viz. the transplantation of whole tribes from beyond the northern frontiers into the Empire. Augustus' general, Agrippa, had already transplanted the German Ubii from the right to the left bank of the Rhine. Some years later 40,000 Sugambrians and Swebians were settled in Gaul, and 50,000 Dacians were brought from the districts north of the Danube into Thracia. In the reign of Nerogreat hosts with chiefs, wives, and children — it is said to the number of 100,000 — were brought over the frontier from the same districts. When Marcus Aurelius had conquered the Marcomannians and the Quades he settled those peoples in great masses in the Empire — in Dacia, Pannonia, Mysia, the Roman Germany, and even in Italy.

These settlers did not attain to the citizenship; they became something like serfs and in a later age contributed considerably to the army.

Professor Seeck contends that this invasion of Germans caused an important change 14. The western part of the Empire was Germanised and the birth-rate commenced to increase, he says. In the wars of the third century there is never any mention of a deficiency of recruits, as in former times. He refers to the description of the Gauls by Ammianus Marcellinus in the fourth century to show that they were Germanised; they were well able to fight, had blue eyes, fair hair and complexion, and were of high stature. But our ideas of the Celts are contrary to the ancient testimonies 15. As long as the government desired to recruit the army from the civilized population, there was a lack of recruits; that the recruiting should be difficult in the great wars of Marcus Aurelius is comprehensible, since pestilence ravaged the Empire. As soon as the emperors determined to recruit the army from the provincials (Pannonians, Illyrians, Africans etc.) there was no lack of recruits. In older times a very small minimum height is given for the recruits, 1,48 m.; in 367 A. D. on the contrary a very high one, 1,63 m., and this is believed to demonstrate a change in the supply of recruits. But the former figure refers to voluntary recruits, of which there was no surplus in these times, the latter to such recruits as landed proprietors had to deliver from their serfs. They were no less anxious to furnish as bad men as possible than the government to get the best men. There is no evidence for a swift change of blood, but the importance of the Germans that were transplanted into the Empire is not to be underestimated. They formed a strong addition to the barbarian population and paved the way for the German occupation at the end of the Empire.

What has been set forth as to this point may convey the impression that an inverted selection took place, and in reality there was something like it. The peoples that had created the ancient culture and the Roman Empire diminished in number, and the gaps were filled up by provincials. This process led to a sinking of the culture, in proportion as the less civilized provincials ousted the old citizens, and lessened the coherence of the Empire, which depended on the people that had created it. But this problem we have not to consider here. The process concerns us directly in so far as the old races were ousted by races of lesser value. This fact may have been of importance, but in view of their later history it is risky to contend that the Semites and the Germans were less able races, and

from these two peoples came the main streams which changed the stock of the population.

The crucial problem is another and is one that is contained within the Empire itself to a far greater extent than may have appeared up to this point. The Roman Empire was a motley of different peoples, races, and languages. This fact has been somewhat obscured because in the West the old languages were ousted by the Latin and died without leaving traces (except the Basque). But this is superficial matter. The races themselves persisted and took part in the mixing of the peoples, although they changed their languages. It is of the first importance to form a concrete idea of how manifold and deep and great the differences were 10.

At the commencement of the Empire the population of Italy seemed to be rather homogeneously Roman. It had been Romanised during the last centuries of the Republic, but the old races had not died out, they added their contribution to the population. The Oscan-Umbrian tribes were very closely akin to the Romans and they spoke dialects of the same language, but there were once many other peoples in Italy of different races, in the north Celts, in the north-east and south-east Illyrian tribes, in the south Greeks, besides many native tribes, Oenotrians, Sicanians, Siculians, etc., about whose race we know nothing. The Etruscans played an important part but they are yet an unsolved riddle. The art shows that they had a very marked and peculiar physical type. We can read their language but cannot understand it, all attempts to connect it with any other language having failed; the language died out at the commencement of the Empire. In N. W. Italy and S. E. Gaul we find the great people of the Ligurians, which up to the imperial age preserved in some parts its liberty and its very primitive mode of living. Ligurian language is lost, the connexions of this people with other races, if it had any, are unknown 17. The most probable view is that the Ligurians were the original inhabitants of these districts, and were supplanted by the Celts who invaded the Po valley about 400 B. C. Certain students have tried to show that the type of the people and the language of the once Ligurian districts preserve some peculiarities which are supposed to be the last traces of this extinguished race.

Gaul, i. c. France and the Po valley, was so called after the ruling race, the Gauls, who are also called Celts. During ancient times Celtic was the common language of the inhabitants and was spoken even by the noble families. IRENAEUS had to preach in Celtic in

Hereditas II. 25

Lyons, about 200 A. D.; it was permitted to use Celtic in writing wills. The language survived at least into the fifth century. The Gauls had to learn Latin with toil and labour.

In France too the Celts were conquering immigrants, who had settled more especially north of the central mountainous region. In the south-eastern parts lived the Ligurians, in the south-western the Iberians, This is another non-Aryan people whose riddle is unsolved, but it seems as though the Iberians were the original inhabitants of these parts of France and Spain. Small Celtic hosts had penetrated into Spain, mixed up with the Iberians, and formed the Celtiberian tribes. In north-western Spain there still survives the Basque language, the only remnant of the pre-Aryan languages of Europe. Its grammatical structure and vocabulary differ totally from those of other languages. It is tempting to connect it with the Iberian language, but the Iberian inscriptions, although not interpreted, do not seem to corroborate this supposition. Hence some students have referred the Basques to the Ligurians, who perhaps also inhabited parts of Spain, others have tried to connect Basque with the Berber language, but the Ligurians are, as to the language, an unknown quantity and the connexion with the Berbers is not warranted by evident facts.

In the British Isles the Celts are immigrants. Consequently we may expect to find here considerable remnants of the older aboriginal inhabitants. Such were e. g. the wild Picts of Scotland, whom the Romans never subjugated. There is a great difference between the two peoples that still speak Celtic languages — the Irish, who often have fair complexions, and the usually small and swarthy Welsh. supposition at once arises that the Welsh are Celts in language only, and not in race. This theory has been advanced by English scholars, who have tried to find further connexions, e. g. with the Iberians and the native races of North Africa, but without any very certain evidence 18. The theory is of course opposed to the common idea that the Celts were a swarthy people of small stature, but this is an inference from the modern Frenchman, who is held to be the real descendant of the ancient Celts. It conflicts with all testimonies of ancient literature and art. If we desire to know the physical type of the ancient Celts we must needs follow these indications, and they show unanimously that the Celtic type was much more akin to the Teutonic - blue eyes, fair complexion and hair, high stature, and a ferocious mind. If facts are to speak it must be admitted that the Celtic type in France generally was merged in the original inhabitants, and this is only

natural. It is the usual fate of an invading, conquering people, even if they are able to impose their language on the conquered.

Celtic tribes had also penetrated into Pannonia and the Balkan peninsula, but were too few to acquire very much importance. The inhabitants of Pannonia seem to have been chiefly Illyrians. In Dacia and the eastern Balkan peninsula lived the Getans or Dacians, who belonged to the Aryan race, although they never had any considerable historical importance. Our information here is more than usually scanty and does not admit of any suppositions as to the older inhabitants who may have lived in these countries.

The remaining province of the western part, Africa, is better known. The Punic language survived during the imperial age. Most of the hearers of St. Augustine understood Punic: it was spoken by the peasants. The church had its difficulties with their language; no one was readily made a bishop who did not know Punic. In the interior lived the Berber tribes, who still retain their peculiar language and racial type.

In the East the position is simple and clear, except in the case of Asia Minor. In Egypt and the Semitic Orient the Greek culture and language had never been more than a thin varnish that was soon worn off. The ethnology of Asia Minor was extremely mixed. No land had been exposed to invaders to such a degree as this 10. The Empire of the Hittites had been crushed in the twelfth century B. C. by invading Aryan tribes, the Phrygians, but the race survived. It is supposed that it was merged into the Armenians and perhaps partly into the Jews. Lydians, Carians, and Lycians have left inscriptions. An attempt has been made to connect the language of the last-named with the Aryan languages, but with doubtful success. The Lydian language seems to be distinct from others 20. Later on other Aryan tribes had invaded the land, Thracians in the commencement of the first millennium B. C., and Celts in the middle of the third century The interior of the country was called Galatia after them. The Hellenising was wide-spread, but in spite of this the old languages survived more vigorously than is generally surmised, and this is also an evidence for the subsisting of the old races. The Mysians, who seem to have been a mixture of Thracians and Lydians, still spoke their own language in the beginning of the fifth century A. D. So also did the famous Isaurian robber tribes at the end of the sixth. The same was the case in Lycaonia; the Phrygian language survived at least into the fifth century 21. The surface seems to be

Greek, but underneath great racial differences survived, which found an expression in the Christian sects of Asia Minor; their stronghold was the native population of the country.

Our information is scanty and the research is difficult, but the broad outlines which have been sketched above will be sufficient to convey a concrete idea not only of how many races, peoples, and languages were contained in the Roman Empire, but also of how radically different most of them were 22. Modern Europe is apt to give an erroneous impression. Except for a few unimportant peoples of other races (Finns, Hungarians, Turks and a few others) it seems to present the image of an Aryan population that is separated into different peoples but has sprung from the same source. This is true only as to the languages. The kindred languages cover great racial differences, although new races have developed from the ancient blend of races. The very vivid discussion on the origin and splitting up of the Aryan tongue has obscured the comprehension of the older racial status of Europe. The leading idea is (at least unconsciously) that of an ancient original unity that was differentiated and split up. In the case of the original inhabitants of Europe we must instead of a unity imagine a multiplicity of different races and languages; the latter were ousted by the language of the invading Aryan tribes and died, the races were seemingly merged in their conquerors. victorious spreading of the Aryan languages put an end to the multiplicity of earlier languages - e. g. Etruscan, Ligurian, Iberian, etc. - and introduced Aryan languages that were kindred with one another. This process was strongly advanced during the Empire; S. W. Europe, which up to this time had spoken non-Arvan tongues, was assimilated. But the enigmatical Basque language still survives as a reminder of what has once been.

It is in this light that the racial problem of the Roman Empire is to be viewed. As long as the peoples of western Europe lived in their old primitive and independent condition the status was rather stable. The Greek colonists were few and the peoples on whose shores they had founded their towns were often openly hostile to them. In Italy the Latin and Oscan-Umbrian tribes pushed out the original inhabitants more and more. The connexions with Greece and the Orient were few. The invading Celtic tribes brought disturbance, but these tribes settled in certain districts. In S. W. France and most of Spain the old races were not disturbed. The invasion must

however have involved a certain mixing up of the races, and this is testified by the name of the Celtiberians. But the culture was little developed, the intercourse was rare, the intruders were not able to absorb the old races, they consolidated themselves within somewhat narrower frontiers. The tribes were independent and hostile to each other. This would have prevented a mixing up of the races on a larger scale, even if the conditions for such a mixing up had existed at all.

Such were the conditions introduced by the Roman Empire. The peace of the Roman emperor, imposed by the Roman government, wiped out the old frontiers. The different tribes were subjected to the same administration and the same culture was opened to them all. The excellent Roman roads favoured the intercourse, while culture, trade, and the needs of the Empire increased it. The mixing up of the different races and peoples of the Empire was begun and increased by all the causes which make the inhabitants of a civilized state move from one part of it to another. What some of these causes were we have shown in the foregoing pages. The men who in former times had lived and died and propagated their kind within the frontiers of their own people were mixed up, as it were, in a great bowl as wide as the limits of the Empire, and peoples from beyond the frontiers were thrown into the same vessel. This is the fundamental fact the importance and consequences of which we have to consider.

It may be said that the problem was whether the less civilized peoples should be merged in the civilized — the Romans and the Greeks, to whom the culture and coherence of the Empire were due — or whether the civilized were to be absorbed by the less civilized. As we have seen, the circumstances were not favourable. The effects upon civilization were very important: the bankruptcy of the civilization and sinking of the general level of culture in the hardships and wars of the bad third century destroyed much more than all the cruelties of the emperors. But it is not our task here to investigate this point. The mixing up of the races involves not only a problem for civilization but also a biological problem, and to this we must now return. I think it may be understood in the new light of recent researches on genetics.

The species man is extremely variable, being surpassed in this respect by only a very few other species. Each race is the product of a historical development, although the history of its development belongs to a time past long ago, which has never been recorded. The

condition for the developing of a race is that a group of men, who may be counted in hundreds or in millions, shall live for a considerable time in at least relative isolation, so that foreign disturbing elements are kept out. If it be supposed that this group originally contained a motley mixture of internal and external dispositions, the natural conditions under the sway of which the group lives will be favourable for some of these dispositions and unfavourable for others. The natural conditions have the same effect as the conscious interference of a breeder trying to produce a certain race of some species of animals, although more slowly and not to the same extent. The effect will be stronger in proportion to the smallness of the group and the intensity of inbreeding. The outcome of this selection depends much more on the dispositions which originally existed and which in the development of the race attain to ascendency than on the external milieu. Why some races are excellently adapted to the natural conditions of life of their country and are yet unable to achieve a higher political and intellectual development, and why on the other hand other races are able to create a culture and a political organization is a riddle which is concealed in the darkest riddle of all, the human mind, the variability of intelligence and volition, for these too are properties which vary with the race. It is only that we cannot grasp them definitely.

Primitive conditions are favourable to this breeding of races. The population is thin and split up into small groups. Intercourse is rare. The tribes are hostile or at least foreign to each other and occupy each a definite district. A fact of profound importance for the development of society and races is the claim to possess the district in which the tribe lives; this seems to be founded in the nature of man, as well of some species of animals. Foreigners who penetrate into the district of the tribe will be expelled or killed. The tribe maintains its purity from foreign elements until the advance of culture introduces slavery, which is first applied to the women. In primitive conditions this occasion of the mixing of the races is of no great extent or importance. Neighbouring tribes are often kindred.

Under primitive conditions we have consequently to expect a multiplicity of characteristically different races, although the differing capacity of different races to maintain themselves in the struggle for life and the combats against other races causes a certain race to spread itself over a wider territory, while the migrations which originate in over-population and an innate desire to wander introduce a foreign race into a country. If we take these two circumstances into account, we have the status of Europe and Africa before the Roman conquest. In Africa we find Berbers and the immigrant Punics, in western Europe Iberians, Ligurians, the immigrant Celts, and plenty of other races of whom we have no sufficient knowledge. The ethnology of Italy seems to be more varied; our information is here richer. Apart from the old inhabitants and the immigrant Aryans there were the enigmatical Etruscans, who cannot be connected with any other people. The Balkan peninsula and the countries south of the Danube were inhabited by Aryans and perhaps by remnants of an older population. Asia Minor was from very ancient times a melting-pot for many different races. Syria was inhabited by Semitic tribes which the policy of the Assyrians had transplanted and mixed up. In Egypt the old stable race preserved itself, but the mixing up with the foreign masters of the land and immigrants here also caused a mingling of races which may possibly have been an important factor in the trouble and decline at the end of antiquity.

When under the shelter of Roman peace and Roman administration all these races — those mentioned are only the most important of the races known - were mingled with each other, the result was an unlimited bastardizing. Bastardizing conveys perils which cosmopolitanism did not acknowledge but which modern science has shown to be real. The race is a group of men with definite hereditary dispositions which through the above described natural selection have become to a certain degree firm and fixed. There are races of more and lesser value. Bastardizing between two races which differ from each other to more than a certain degree results in the deterioration of the race, at least viewed from the standpoint of the better of the The aversion to mixed marriages, e. g. to marriages between Europeans and negroes, is consequently just from a genetic point of view. The danger is yet more insidious if the races are on the one hand so different that the bastardizing involves the peril of a deterioration of the race, but on the other hand do not differ so much in externals that the aversion to mixed marriages makes itself felt. This aversion is however a very feeble defence against the mixing up of races, and its strength depends on the mind of the age.

The crossing of races, through which a better race is superseded by a worse, is however neither the only peril nor the greatest. A race that is at least to a certain degree pure is physically and psychically a fixed type, which precisely through the firmness and fixedness of its dispositions is able to create something to which its dispositions predispose it. If these dispositions are of such a kind as to enable the race to achieve a higher culture or to organize a state, as was the case among the Greeks and Romans, the result will be a certain form of culture and of state, moulded according to fixed laws and customs of life. The result of the bastardizing will be a motley blend of the different hereditary dispositions of the races which are crossed. Mere chance brings different dispositions of different races together in almost infinitely varying fashions. But this does not suffice. Dispositions which were formerly concealed, lying latent in one or the other of the crossed races, will appear on the surface and make the product of the crossing yet more motley and incalculable. The unity and harmony of the race and the individual will be destroyed, the personality loses its balance. The individuals which are born out of this crossing fail to achieve a firm and fixed type. Psychically they lack a definite direction and vacillate indecisively between conflicting and unconnected hereditary dispositions. They may often possess great intelligence, but the moral strength is wanting. This state of affairs is due to biological factors but gets still worse if as was the case in the Roman Empire — the fixed form of the mental life at the same time breaks down and is transformed.

Bastard races have a bad reputation. If Levantines, Eurasians, Mestizes etc. are mentioned everyone feels how deep-rooted is the objection against them. People are wont to say that this bad reputation and the moral weakness of the bastards are due to the unfavourable conditions in which they are born and bred, usually as illegitimate and neglected children, disowned by the kinsfolk of both father and mother. But this is not the full explanation, it is only superficial; at the root lies the destroying effect of the bastardizing on the personality. The Roman Empire became more and more filled by bastards. The bastardizing was strongest in the ruling country, Italy, whither people from all the borders of the Empire flowed together, and was stronger in the upper civilized classes than in the lower, which did not move about with the same frequency 23. But the army, the trade, and the general intercourse carried the bestardizing into every corner of the Empire. The swiftness of the process is not to be wondered at. Contrary to the slow development of a race, the bastardizing shows its effects even in the first generation, but is of course increased by the crossing of the bastards. Whether it is to set its stamp on the people will depend solely on the extent of the process, and it has been shown that in the Roman Empire it was carried out on the largest scale.

A bastardizing to this extent results in the mingling of better and worse races into a motley and indefinite mass without firm mental or moral characteristics. This is a sufficient explanation of the decline and fall of the ancient culture and the Roman Empire. But even if the bastardizing and mixing up of the races leads by its immediate effects to chaos, this is not the ultimate result. New races may emerge from the chaos and be able to reconstruct that which was destroyed. We know the conditions for such a development. They are that the bastardizing shall cease and the people shall be isolated so that the mixture gets its chance and has time to become settled and purified. In this way are given the conditions for developing a new race from the motley blend, the nature of which depends on the circumstances.

The above-mentioned conditions were realised at the commencement of ancient history. The ancient culture peoples, the Greeks and the Romans, invaded their countries from without and settled themselves among peoples of foreign races. The Greeks and the Romans of history are a product of a blending of races. Our knowledge of the Romans is very scanty. If the oldest population of Rome was a blend of Latins and Sabines, that does not matter much, because these tribes were already very closely akin. But it is certain that the Etruscans held sway over Rome some time towards the end of the period of the kings, and their culture exercised a profound influence on the city. They lived next-door, on the other bank of the Tiber, and it may be supposed with certainty that the Romans had a considerable admixture of Etruscan blood.

Greece is better known than Italy and her history enables us to follow the process more closely. Recent discoveries have revealed to us the wonderfully high culture of the early and middle second millennium B. C., which is known as the Minoan and Mycenaean culture. It is certain that the people which created this culture was not Aryan; it was perhaps akin to some peoples of Asia Minor, though others maintain that its kinsfolk are to be found in northern Egypt. The invading Aryan tribes, the Greeks, settled among the original inhabitants of Greece in the same second millennium and at last destroyed the old culture. The centuries between the decay of the Mycenaean culture and the commencement of the historical age are a blank. We know only that the culture was utterly debased. The small di-

stricts of Greece were isolated from each other. This is shown by the geometrical style of vase-painting which belongs to the ninth and eighth centuries B. C. The Mycenaean style of vase-painting is the same wherever Mycenaean vases are found, in or outside of Greece. The geometrical style, on the contrary, has very characteristic differences: it is quite easy to say in which island or province a vase or even a sherd has been made. The ancient towns were small, the district was very limited, and the inhabitants were not very numerous. Each of these towns was wholly independent and sovereign, composing a state with its own rights. The bitterest enemy was usually the neighbour. In this narrow frame the people lived and — married. Consequently inbreeding was the rule and was strongly accentuated by the smallness of the population. In Athens at a somewhat later age the law enforced it; nobody could become a citizen if both his parents were not citizens of the town. This isolation and inbreeding created the race to which ancient culture and the foundations of our own culture are due. Italy, which at last conquered the world and organized the Empire, underwent much the same process.

The process was repeated, but on a larger scale, after the decay of the ancient culture and the fall of the Roman Empire and the settling down of the foreign conquerors in its provinces. Letters and education, as far as they survived at all, were limited to very few. The decay of the material civilization changed and fettered the lives even of the poorest classes. We may compare the ages e. g. of HADRIAN and of the Merovingians in order to perceive this. Intercourse ceased. The old Roman roads, on which the peoples of the Empire had penetrated into all parts of it, fell into disuse, were broken up, treated as quarries, or became overgrown by herbs and woods. Society was split up into small independent and self-supporting unities, - this is the feudal system - the inhabitants were rooted fast in the soil. So there reappeared the primitive conditions under which every man takes his wife at his own doors. In this isolation of the small groups new races and new peoples developed out of the mixed human chaos of the Empire during the Middle Ages. These are the peoples of modern Europe, and the outcome of their racial instincts is seen in the national states of modern Europe, whose frontiers form to some degree an effective barrier against a race-blending of such a destructive character as that which was the most active cause of the decay of ancient culture and the fall of the Roman Empire. Nemesis of history has caused the consequences of victory to be

fatal to the victors, who have been merged and lost in the broad masses of the conquered races.

NOTES.

- ¹ O. Seeck, Geschichte des Unterganges der antiken Welt, I, the chapter »Die Ausrottung der Besten».
 - ² K. J. Beloch, Die Bevölkerung der griechisch-römischen Welt.
 - 3 K. J. Beloch, Griechische Geschichte, I: 12, p. 66.
 - ⁴ MARTIN P:N NILSSON, Den romerska kejsartiden, II, ch. 4.
- ⁵ J. Ilberg, Zur gynäkologischen Ethik der Griechen, Archiv für Religionswissenschaft XIII (1910) 1 sqq.
 - ⁶ L. Friedländer, Darstellungen aus der Sittengeschichte Roms, 18, pp. 419 sqq.
 - 7 The lex Julia de maritandis ordinibus and the lex Papia Poppaea.
- * For references see e. g. the article Alimenta in Pauly-Wissowa, Realency-klopādie der klassischen Altertumswissenschaft.
 - 9 M. GELZER, Die Nobilität der Kaiserzeit, Hermes L (1915) 395 sqq.
- ¹⁰ A. v. Domaszewski, Die Rangordnung des römischen Heeres, Bonner Jahrbücher 117 (1918). H. Dessau, Die Herkunft der Offiziere und Beamten des römischen Kaiserreiches, Hermes XLV (1910) 1 sqq.
- ¹¹ V. PARVAN, Die Nationalität der Kaufleute im römischen Kaiserreich, Dissertation, Breslau, 1909.
 - 12 H. Gummerus, Romerska krukmakarstāmplar, Eranos XVI (1916) 176.
- ¹³ M. Bang, Die Herkunft der römischen Sklaven, Rheinisches Museum XXV (1910) 225 sqq.; Nachtrag, ibid. XXVII (1912) 189 sqq.
 - ¹⁴ Seeck, loc. cit. pp. 385 sqq.
 - 15 See, p. 380.
- ¹⁶ The old standard work is H. D'Arbois DE JUBAINVILLE, Les premiers habitants de l'Europe² (1889). For a more recent review see H. HIRTH, Die Indogermanen I pp. 34 sqq.
- ¹⁷ Some authors, following D'Arbois DE JUBAINVILLE, take the view that the Ligurians were an Aryan people, but the evidence adduced is exceedingly slight.
 - 18 See e. g. J. BEDDOE, The Races of Britain.
- ¹⁹ See my paper Den stora folkvandringen i det andra årtusendet f. Kr. in Ymer 1912, pp. 455 sqq. On the languages of Asia Minor P. Kretschmer, Einleitung in die Geschichte der griechischen Sprache, pp. 289 sqq
- ²⁰ Sardis, Publications of the American Society for the Excavation of Sardis, vol. VI, Lydian Inscriptions, by ENNO LITTMANN.
- ²¹ K. Holl, Das Fortleben der Volkssprachen in Kleinasien in nachchristlicher Zeit, Hermes XLII (1908) 240 sqq.
- ²² The anthropological school of Professor Sergi, RIPLEY and others has tried to show that there existed in Europe from very old times three races: the fair, dolichocephalic Northern race, the dark-haired, grey-eyed, and brachycephalic Alpine race, the dark-haired, dolichocephalic Mediterranean race, and that, in spite of all invasions and crossings, these races still maintain themselves in their respective districts. I cannot discuss this theory here, it would also imply a

discussion of the question as to what is to be understood by "race". (For my views as to this point see my above-cited paper in Ymer 1912, pp. 485 sqq). There are races with varying degrees of racial differences. I wish only to point out that the above-mentioned theory may not be inconsistent with the view that is advanced here. The signs by which these three races are recognized are purely physical. Here it is in the first place a question of psychical differences. It may be that the physical properties have persisted on the whole but that the psychical ones have changed in the formation of the new races which have developed from the blending of the races in Europe.

²³ Cp. the dates given above (pp. 384 sqq.) for the provincial origin of emperors and senators.

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