CHAPTER VII

HAIR AND ENVIRONMENT

IN endeavoring to establish the relationship of our hair growth to man's primitive instincts, and connect the decline of our hair with the gradual decline of instincts under the influence of environment, I have, to a great extent, been forced to draw my conclusions by deductive reasoning.

In drawing these deductions the largest possible human area had to be covered to avoid the pitfalls of limited personal observation. Although every one among us is individualistic, different from another, he can claim type distinction only if his type is proven to exist. We may be easily misled, however, in attributing characteristics to an individual, on surface indications. These may be mannerisms only, acquired by our imitative agencies. The lady's maid or shop girl may successfully pose in society as a princess of the blood. From head to foot the raw material has been so effectively

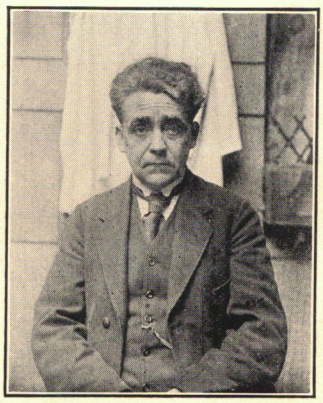
veneered that not even the expert's eyes can penetrate until something untoward happens—the loosening of a social screw, a break in the shell. The momentary fissure uncovers the fundamental—discloses the millionaire of the day-time as the robber in the night—the "best family father in the world" as the polygamist, the man with the saintly face as the murderer, the hero as a coward. It is true that human progress has had considerable biological influence on us as shown by our hair decline—yet it must be borne in mind that we arrive in this world in a much confused mental condition, for in those nine months in the mother's womb we have traveled through all the ages, through the ocean as fish and the primeval forest as four-legged animals, to arrive finally in the cradle of a cultured society under a constitutional government. But that is all. In this stage the stork delivers both the "savage" Australian bushman's issue and the prince or princess of a royal palace.

The term "savage" loses its common meaning and expresses only a different mode of civilization rather than what we understand as breed and culture. The difference of hair production

of the various principal races, white, black, yellow, is so small that it escapes the casual observer or misleads him. Therefore, it must be accepted that the present races of the globe are about equally advanced from the primitive hairy man's stage and it would seem that that race only, which is hairless first, may be proud of superior culture.

How slow race expressions are is best indicated by the barometer of the hair. While the yearly difference in production between the three above named races probably does not amount to more than one ounce, sub-classes already show greater variations. The lower castes of Chinese and Hindus grow only a small amount of hair, especially the females. The reason for this is that these people have no self-determination. They are human beasts of burden under an inexorable law of oriental culture which is infinitely stricter than ours. They compare to the higher castes from a hair point-of-view in the same ratio as the pig and the boar. Thus the more we narrow our field of survey the more distinct become our hair expressions, the greater the contrasts.







These heavy hair growers (6 oz. per annum) show the weight of existence in their expressions. They lack the freedom of aspect commonly associated with small hair growers. Their expressions indicate the difficulties of the time to which they biologically belong.





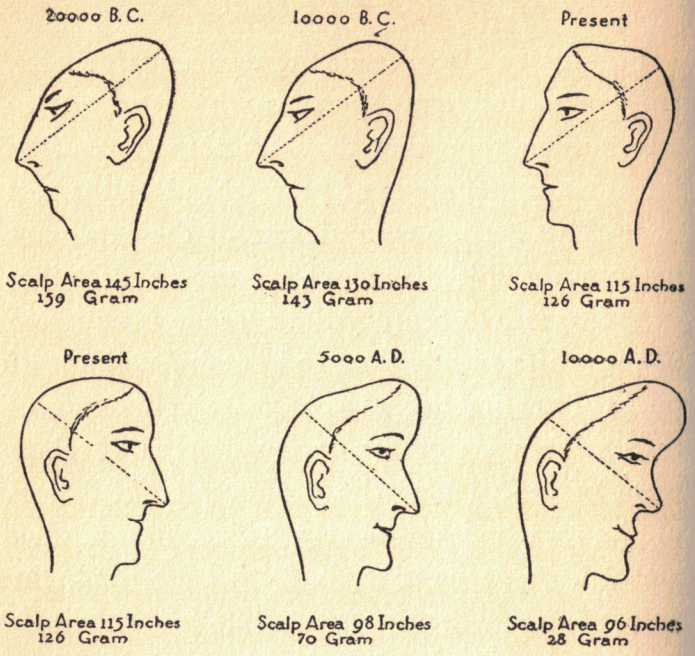


HAIR GROWERS OF AN ADVANCED TIME (2½ OUNCES PER ANNUM)

With advancing culture the facial aspects of the people become more pleasant and adaptive, mainly on account of the ever-decreasing self-instinct.

Finally we discover among our acquaintances, employees or clients, persons who represent so advanced a type that they seem to have been born many thousands of years ahead of the rest of us. To get the true picture of the enormous meaning of this difference we must recall that in the twentieth century the average production of the white race is four and one-half ounces of hair (of the first period) per year. This leads us to consideration of the period of race development of the person who produces eight ounces of hair, which is nearly twice the normal amount, or perhaps sends forth four times the amount of another person. Since our hair is undeniably of primitive origin and the product of the evolving human mind and, as such, of the time to which the mind belongs, the person who to-day produces eight ounces of hair per year must be the child of the time when such production was average. It is not likely that in the past the race has lost more than one ounce of hair each ten thousand years although we may expect the depreciation process to go much faster in future.

Indeed, if we study the physiognomy of large



The biological age difference between these extremes is probably about thirty thousand years. The scalp area is decreasing as the forehead rises. The hair follicles produce finer hairs, yielding less weight per area inch. When the production has gone to zero the human race will cease to exist. The advanced types are already with it.

(Above.) The biological difference between these three heads is probably twenty thousand years. The hair field gradually diminishes as indicated by the dotted line because the rising forehead results in a lowering of the crown. The yearly hair production of a person who lived 20,000 years ago was 159 grams against 126 grams which is the average white man's production of to-day.

(Below.) Owing to increased facilities for education and other softening influences the decline from the instinctive to the organized mind will go on faster in future than in the past. The yearly hair production will have fallen from 126 grams to 28 grams. When the production eventually fails altogether the race will cease to have enough driving force to exist.

hair producers we find on them an ancient expression which we would in vain try to find in the small hair producers. It speaks, therefore, well of our social molding machine that it was able to group together such immensely different basic nature, some born 20000 B.C. with others born, say, 10000 A.D., in a merchant's office clicking their typewriters and apparently contented and the best of friends.

Yet, in spite of the complications brought about by environment, we insist on having types, meaning by the word large numbers of persons of similar instinctiveness, in order to quickly express an individual's outstanding characteristics. More peculiar is the fact that we generally conjure up a picture in our mind in response to expressions such as, "he looks like a criminal," "he has hair like a lunatic," "he has a forehead like a scientist," "he looks like a duke." Why do we nod comprehendingly? How does a criminal look? What kind of hair has a lunatic? What particular forehead a professor? Neither adherent of any of these classes could truthfully explain the difference we mention and understand it, for neither is probably

exactly where he wanted to be, but was guided to where he is by environment and circumstance rather than by natural selection. Thus we find it difficult to locate the sub-classes or types who by an age-old inherited mode of living have developed a distinctive hair expression. Not only the United States but all nations of the Caucasian race are, and have been, melting pots for ages. Slaves are gone and with them the domineering classes, while the ever-existing middle classes represent a turbulent sea never particularly expressive of outstanding characteristics. It is true that we still can easily distinguish the Frenchman from the German in the streets of Rome or the American from the Englishman in Vienna. But this we do by other means than inherited traits.

However, a few years ago while traveling in Europe in search of "classes" which might present further corroboration of my deductions, I had the good fortune to discover two groups of individuals who illustrated graphically the influence of habits and customs on the forces which govern hair production. Let me call these two groups "Rom" and "Gall." Both be-

long to the Caucasian race. They have been neighbors to each other for many centuries, during which each "class" has clung tenaciously to its own peculiar traditions and to characteristics originally imposed by the existence with which it was confronted, and has developed its own distinctive hair production.

"Rom" is a small manufacturing town in a hilly district of middle Europe. It has a population of 2600, which number has been stagnant for years. A certain commodity has been manufactured in "Rom" since the sixteenth century, and of its entire population, four-fifths over the age of sixteen are employed in the various small factories. Until recently, the nearest railway station was seven miles away from the town and even now "Rom" can be reached only by means of a narrow gauge tramway, which follows the course of a meandering stream. The inhabitants know little about the radio, the telephone or the automobile, though they may have heard of these latest products of civilization. Sports, except dancing and a ski club to which two teachers and ten or twelve young men belong, are unknown.

The present population of "Rom" is the result of inbreeding. Men and women marry within the little community and there is little, if any, new blood from the outside world. Their attitude toward strangers is shy and reserved. It is not strange, then, that all of the women beyond middle age have a surprising similarity of expression, of height and physical development, so much so that one might easily believe that they were all related to one another. They have mouse-brown hair which most of them comb in small knots at the back of their heads. The men show somewhat less similarity and all have good carriage due, no doubt, to their former military training.

I went into the factories of "Rom" and found women seated in rows on long benches—grandmother, mother, daughter and niece—all on the same payroll for generations. The local physician informed me that their life does not prevent them from being sufficiently prolific to people the town despite constant emigration. The women over twenty years of age are rather light in weight, showing no excess fat although they are fairly full-bosomed. Their arms and

legs are free of hair except for a few lanugos which, however, are entirely negligible for our purpose, and, therefore, not considered. The "Rom" women lead a regular, even existence, without what we may call purpose. Their education begins and ends in the elementary school. They work as they cook, as they bear children, as they go to church and as they sleep —in monotonous routine. Life holds nothing for them except the unchanging mechanics of existence, continuing unceasingly until death.

In one factory I examined the hair growth of forty of these women between the ages of twenty and forty—and found their scalp areas very small, averaging but ninety-six square inches. The yearly hair output on their scalps was also far below standard, namely from 45 to 83 grams (about 1¾ to 3 ounces) per individual. They averaged 75½ grams or about 2¾ ounces. (It was interesting to note that few of "Rom's" women had gray hair, even those above sixty years of age—including those not employed in the factories.)

After having examined the hair production of the mothers of "Rom," I found my way into

the schools to see their young daughters—only to discover a reverse condition. Wherever possible the children were chosen by their relationship to the mothers already examined. They were between ten and twelve years of age. Their scalps showed an average of ninety square inches as against the ninety-six square



A Typical "Gall" Headshape



A Typical "Rom" Headshape

inches of the mothers. On the other hand, the weight of their scalp hair per annum was greater than that of their mothers by one and one-half grams. Among the children of the factory workers were a few whom the local physician declared to be undernourished, sickly, and in general decidedly below par, and these were not considered in computing the general average.

After a similar survey of the men, studying them from the aspects of sex and premature baldness—which will be dealt with in subsequent chapters—I visited another district populated by the small farmer class which one meets throughout middle Europe—an independent, obstinate, hard-toiling class. This district, which, for convenience, I designate as "Gall," is about twenty miles from "Rom" on the other side of two mountain chains. It would be difficult to find two peoples so completely opposite in psychological viewpoint as the small, independent farmer of "Gall" and the meek and submissive factory worker of "Rom." These farmers are fairly prosperous, although their economic condition is by no means as good as that of the average American farmer. Their life is a continuous struggle against the elements of nature, taxes, mortgages and the domestic tyranny of the stronger. Among the women, this struggle is strikingly expressed in pinched, hard features, shifting, piercing eyes set in gaunt, weather-beaten faces. The hardships which have carved lines of suffering on their faces have not created any bond of mutual sympathy.

They seem to hate each other heartily. Their dogmas are fiercely held and their basis of household control is either physical strength or volubility. I can truthfully state that I rarely heard an amicable discussion during my entire visit. The people are stubborn and clannish. Toward a stranger, like myself, they exhibited no shyness as did the people of "Rom," but rather a suspicion so vicious-seeming that I found it necessary to invoke the assistance of the local eminences, such as the ministers and school teachers, in order to obtain their goodwill, to persuade them to answer a few questions and let me measure their heads and hair.

The women of "Gall" wear their hair parted in the middle and, unlike the factory workers' fallen crowns, their skulls are almost at right angles with but a slightly rounded crown and forehead, straight down to the neck. The topographical line, however, is relieved by a substantial knot of hair worn either at the back or the top of the head. The hair, unlike that of the women of "Rom," which is of almost even color, shows more variety. In neither section, however, did I find black hair. The average

scalp area of these self-reliant, toiling women, who had no Saturday payroll to look forward to, and whose day's labor often occupied sixteen hours, was 104 square inches, that is to say, an area nine square inches larger than that of the women of "Rom." I examined the hair of thirty-two of them and found their average hair growth to be one hundred and one grams per annum, ranging from eighty-eight to one hundred and thirty-two grams, according to the individual. Here, then, we have by comparison the farmer's wife of "Gall" producing, on a somewhat larger scalp, 101 grams per annum against the worker's 75½ grams.

The children of "Gall," whom I also examined, did not fare quite as well as the children of "Rom." I found, among the farmer children, more who were crippled and diseased than among the factory children. The hair growth, even on those who were entirely normal, did not compare favorably with the hair growth of their mothers, and was not much better than that of the children of "Rom." The average scalp area of the children of "Gall" between the ages of ten and twelve years was ninety-three square

inches—three inches more than that of "Rom's" children, and I calculated their hair production at seventy-three grams as against the seventy-two and one-half grams of the factory town's children. The average child in "Rom" was inferior to her mother in yearly hair production by three grams, while the children of "Gall" were inferior hair producers to their mothers, to the extent of twenty-nine grams. The situation is not so surprising when all the factors of existence are considered. If fresh air, vegetables, eggs, milk, etc., are, as some persons claim, the factors that produce a strong hair growth, the children of rural "Gall" must have had very little of such food or else such foods have little to do with the production of hair. Alternately, bread, adulterated coffee, potato soup and the canned goods on which the factory children live might be prescribed as a good hair-growing diet. The absurdity of this statement is apparent. The paradoxes I have set down here are substantiation of my contention that food has no direct bearing upon the growth of hair. Rather, we must again seek another explanation, and this time it is one that is contrary to the theory set

forth. Adversity, which is a dominating factor in character development, will only react favorably in the individual if the individual may hope for better things and is allowed a commensurate amount of liberty and independence to battle for the achievement of his hopes.

In the farming community of "Gall" the conditions are less ideal for the child than in the town. The industrial community of "Rom" has a benevolent government to extend its protecting and providing hand in the interest of the child. In "Gall," the children have to make their way to and from school as quickly as possible. Vacation and play are not for them. They have found that neither parent wastes words and demonstrative affection on them. They are made to feel that they have come into the world to help their elders in every possible way. There is the solitary cow to be watched while it grazes; potatoes must be picked or pared; wood gathered and a hundred and one chores done during the brief period between the school session and bedtime. The result is a morose and venomous state of mind which even the passing stranger notices.

In physique the industrial children of "Rom" were slightly inferior to the farmers' children. On the other hand, the factory mother's child had a surprisingly independent and happy air as compared to the disgruntled and moody aspect of the farmer's child. It is preferable in many instances to be the slave of a stern yet just master than to be free and unguarded, and "Rom's" factory children, even though their parents spend all of their days at work and they, themselves, are confined from six to seven hours daily under strict discipline at school, are happy when released. The State, in conjunction with the town authorities and factory owners, gives them a few cheerful hours of play daily. They are congenial and compatible and enjoy one another's company.

Even marriage in "Gall" has very little to offer the girl. The young woman accepts it as a matter of custom and tradition and has no dreams of an ideal union. If the oldest daughter is heir-apparent to some acres or other dowry, her parents, long before she is aware of it, select from among their circle of acquaintances a young man similarly blessed. Once the mar-

riage is consummated, life becomes a contest of strength and endurance. At the age of sixteen a change occurs in the women of both communities. At that age, a woman in "Rom" starts on a mentally downward grade as a submissive "routinized" employee on the factory payroll. So regulated are her days that life soon becomes monotonous. She lives cheerfully and easily and generally marries in her early teens. Children arrive, too, as a matter of routine, and for their sake the factory whistle is ignored for a few weeks, affording an agreeable and, generally, the only vacation for the mother. Gradually, thereafter, the mother becomes a plodding drudge with no vision or even strong desire for a different future.

On the other hand, the young women of the farmer's family take on an entirely new outlook when they arrive at a certain age and physical development. At this time they have become of economic value to the farmer in that each takes the place and saves the hiring of at least one—and often two—laborers. But what if the girl runs away and finds a position in town? This possibility, with the knowledge of her

worth, is the weapon of the woman of "Gall" once her school years are past. Feeling her strength, she asserts herself, quarrels, commands, eats whatever, whenever and as much as she likes, yet withal jealously watches those under her. These women who as children were meek slaves and weak hair producers, suddenly become strikingly good hair growers, while their sisters in "Rom" at the same period turn backward and meekly submit to what they regard as the inevitable, arriving at middle age with a little mouse-colored knot of hair indicating only too clearly the weakness that produced it.

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Viewing the influence of living conditions in a larger aspect than that afforded us by "Rom" and "Gall," we find a striking example of the effects of adversity in the Jewish race of the present day, which we have previously stated produces more hair than the non-Jewish races. The need for adaptation in order to survive has greatly sharpened the wits of the Jewish race, and the persecution to which these people were subjected ever since the rise of Christianity has developed within them an indomitable spirit of

resistance founded on a rigorous will to rise above their misfortunes. Even this race, today, is on the downward grade as a hair producer, for existence now affords greater security and the stern, self-imposed discipline under which the race hardened itself in the past has been mitigated.

A somewhat similar condition exists among the so-called aristocracy of Europe, whose members as a whole are excellent hair producers. If we study the careers of the various old, ruling families we find them governed by traditions which have less regard for the cultural refinement of their children than their physical bringing up. Long lineages, it seems, did not come about by mere chance of fortunate circumstances, but rather as a result of deliberate planning. Men were short lived in the middle ages. They went to, and were often killed in battle, in early manhood. Therefore, they married young and when children arrived, the bringing up was on definite lines to produce virility, to instill characteristics of defiance and resistance so that they might continue their line, and establish its dominance over other men.

No one knows the influence of early training on the child better than do the great and powerful organizations—the Army and Navy, and above all, the Catholic Church. In military "academies" even the youngest child is subjected to rigorous discipline, and taught to endure it. The Jesuits, the most expert of educators, say, too: "Give us a child from the cradle up to its ninth year and we make of him that which we want." The earlier the educator gets hold of his pupil the more effective are his efforts, and the more lasting the impressions on the pupil.

Narrowing the discussion down from groups and generalities to individuals, we are struck by the failure of the highly developed modern man, of the broad, high forehead type—as a successful progenitor. The intellectual leaders of our times, outstanding figures in arts and philosophy, are generally stars that pass the human horizon as comets flash across the sky, leaving behind their individual impression on our mind, but perpetuating their lineage by a weak issue or none at all. The industrial giants of to-day, gifted as they must have been with perfect health and a powerful resistance in or-

der to rise to their eminence, failed in this respect almost without exception. Industrial magnates—or the great organizers—leave but meager family traces behind. Outstanding figures of the past, such as Napoleon the First, King Frederick the Great, Francis Joseph of Austria, Czar Alexander of Russia, could not themselves fulfill what they preached to be first class State requirements. All were as the jovial King Edward VII of Great Britain—not very strong hair producers. The present King George, Wilhelm the Second, and Czar Nicholas, however, reverted to type. The foreheads of these men were lower, their hair production increased and all had many healthy children. Whether this came about by accident or design must be left to the historian to ascertain, but, in his recent book of memoirs, Wilhelm of Hohenzollern complained bitterly about the treatment he received from his various governesses and tutors while a child. Often, he wrote, he had to be content with hard, dry bread—not even buttered, for his breakfast, and for every little offense he was rigorously disciplined. Nietzsche's philosophy of "might is right" had,

no doubt, an influence on the tutors of the latest royal generations, and this philosophy was applied rigorously enough to raise the crown to a higher peak, to lower the forehead, to stimulate physical rather than intellectual development.

CHAPTER VIII

HAIR AND OBESITY

OBESITY, surplus fat, is fuel which the body has stored up and holds in readiness for transformation by combustion into heat and energy. It is there and waiting, but the body's nervous activity is low and the fuel is not used. Hence surplus fat tells us much about the individual who possesses it—and makes its revelations as truthfully and significantly as does that end-produce—the hair. The weak-haired person is more subject to obesity than is the heavy hair producer, and logically so, because weak hair in itself manifests a quiet, philosophically contented nature which needs to expend little energy to get along. The daily process of living, of moving, thinking and of general nervous activity, demands a certain definite amount of food, for one individual more and the other less. If then the skin is padded out excessively and the body increases its girth, the results must be