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Domestic Science as a Synthetic Study for Girls

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DOMESTIC SCIENCE AS A SYNTHETIC STUDY FOR GIRLS

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If "the youth must always begin again at the beginning, and as an individual make his way through the epochs of the world's civilization,"¹ and if "the aim of education is to have the pupil reach the highest intellectual and moral standpoint of the race in the briefest time and with the greatest economy of effort,"² it is evident that the recapitulation of the experimental knowledge which the race has slowly accumulated thru one or two hundred centuries must be condensed into ten or twenty years of the pupil's existence—a thousand years of race development into one year of the child's life. It, therefore, behooves all who have to do with the education of children to search for the fundamental ideas of each race epoch, those which lifted the race highest, and not to waste time on mere survivals. Certain short-cuts must be found which will lessen the time and effort required.

Morgan gives as the fundamental ideas which have induced invention and discovery, and resulted in civilization: (1) subsistence, (2) government, (3) language, (4) the family, (5) religion, (6) house life and architecture, (7) property.

For the purposes of this argument, the epochs may be provisionally stated as animal, savage, earlier and later barbarian, earlier and later civilized.

According to Romanes, "the highest development of the animal mode of thought is reached by the child in the first part of its second year." The long period of savagery is shortened for the modern child into two or three years by the circumstances of family life. He does not need to search for subsistence, or to provide shelter, or to invent a language. His environment offers this, and he needs only to correlate himself with it to discover himself as an individual.

The early barbarian age comes to the average child at about three to five years. Characteristic of this epoch are picture writing, symbolic of dawning ideas of a religious character; the making of rude implements; the beginning of ownership. The later barbarian age may correspond to the age of five to eight years. The use of sharp tools, the ornamentation of clothes and of articles for ceremonial observance, the excessive use of color, the acquisition of property, the beginnings of government and community life, belong to this period.

¹ Goethe.

² Vincent.

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The epoch of early civilization includes a control of the newly discovered forces of nature, namely science, and, as a result, the beginning of arts and manufactures, the extension of industrial processes, the consequent evolution of house life and architecture. It is this epoch which has been neglected in most schemes of education, and for which I wish to plead as an educational force.

To make the point clear, let us review the ruling impulses of the epochs: The savage seeks food and shelter, such as nature offers him. His whole life is bound up in the preservation of the race. The barbarian feels the thrill of conquest, is fired by ambition for the future power of his family, and he begins to accumulate. Civilization, being more or less permanent, looks to perpetuate its victories in stone and in song; to please itself with creating, from the bountiful gifts of nature, things for its own pleasure which are not necessary for daily life as mere existence. It creates wants and then supplies them. A new breath of life has been breathed into the race. "Free ideas," the "creative instinct"—call it what you will—it expresses itself in the effort to make something, a constant activity, instead of basking in the sun when hunger is satisfied. There is now a hunger of the soul which is never satisfied. Underneath child-study is the study of the race stages which influence the child's mental development. What do our schools offer to our children to foster their mental growth by utilizing this race impulse? What do we not do to kill this yearning? We put young children on hard seats, in cramped positions—barbarians, nay savages, that we are—force into their hands a dead book, which must not be crumpled or torn, and exclaim, "Study! study! recite!" and this when the race instinct demands things, objects to be handled, to be put together, built up into something which pleases and gratifies. The pulling into pieces of flowers and animals has no place in the curriculum at this age, and the length of time required for seeds to grow and eggs to hatch precludes much of this work as an educational factor in the lives of those to whom an hour is as long to wait for results as is a year to the adult. Constructive is the keynote of the education of the child between the ages of eight and fourteen years, synthesis in distinction from analysis.

Is it safe to ignore this fundamental phase of race development? If we have neglected it at its proper time, is it safe to count upon the survival of the creative force after the pupil has passed thru the fiery ordeal of study from books and examination for promotion? There is an economic conservatism in all nature's apparent lavishness, and there are fundamental economic principles under all advance in science, in art, in aesthetic ideals. What is the "economic function" of woman in this race progress? According to Edward Devine, the home, made possible by the mother's love for and care of the family, in which the higher of economic functions, that of determining how wealth shall be used

in order to secure the highest enjoyment, is the center of interest in any study of present social and economic progress.

Prosperity depends quite as much upon the choice of the various commodities and their combination, in order to secure the greatest pleasure and satisfaction, as upon their production. In fact, production is limited by choice; manufacture ceases when demand ceases; hence, in order to influence production, choice must be wisely directed. Production has been stimulated by combination and competition; many thoughts of many minds have gone into the perfection of a machine, into the design of a beautiful building. Whatever may be said from the artistic standpoint, from the economic, collective industry alone has made possible the rapid advance of the nineteenth century.

But the home is still an individualistic industry, protected from competition, hedged about by tradition, and nearly smothered by the dust from the wheels of progress now far ahead; it seems to be no longer the center of enjoyment for the products of wealth, because the woman has lost her grip, and the cable travels only the faster without her; because, in her struggle to become an active producer, she has lost sight of the science of consumption—that destruction of wealth which gives the highest satisfaction. It is her privilege to stand on a higher level and say what shall be produced, and in what combination materials shall be used in order to give that greatest satisfaction which is the end of all effort. It is for her, with dainty touch and artistic insight, to transform the crude products of the factory and the workshop into things of joy. It is for her to make her labor more in demand by that refinement of taste which, when educated rightly, she is best fitted to give.

That the home is not fulfilling this function is evident from the decadence of true home life and the loss of industrial skill. One of the severest arraignment of even the college women of today, who are aiming at higher professional work, is that, when compared with men in their classes, they cannot think, judge, and decide—that is, they cannot use to advantage the knowledge they have confessedly gained. Just as in domestic affairs women have not yet availed themselves of the opportunities which the scientific progress of the time has placed in their hands. And this in the face of the fact that in early civilization the women were the manufacturers, and that nearly all industries were in their hands. Why has everything slipped from them? Why is it that, altho this last hundred years has seen the greatest advance ever known in mechanical device, has seen the greatest feats of constructive invention, women have allowed all the arts relating to house and home to pass from their hands into those of the hotel clerk and the janitor of the apartment house? Why do they buy fabrics, furniture, and utensils on the recommendation of the salesman at the bargain counter, and not because of their intrinsic value? I believe it is the fault of the school education,

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which has taken no account of the value of the constructive arts as a stimulus to original thought; which has neglected to cultivate that sense of power over things and over environment which the study of arithmetic does not seem to give to girls.

The time to encourage this original thought is in the early years of childhood, before any question of copying anyone else can arrive. From the earliest years the child's thought should be expressed in its own way, and what it will learn naturally should not form the major part of its tasks, but rather that which must be placed systematically before it, in order that it may miss none of the stimulating incentives which have proved such factors in the past. It has been said that responsibility is an inspiration, not a burden, in the evolution of the race; our schools have taken the responsibility, and the pupils have lost the inspiration.

The child should have his or her mind quickened, as the race was stimulated, by the pleasure of producing results by his or her own labor, and these results should be judged by his or her own standards, and not by those of the adult. That is, instead of requiring fine stitches in sewing, the effect of color and form and ideal should be reached in coarser material and with more rapid action. A large doll might be most effectively dressed in barbarian fashion in the time taken by the child in painfully toiling over the fine stitches of a sample patch. Neither savage nor barbarian woman felled her seams. The fundamental ideas of early civilization were invention and conquest. The fact that all values are created by human labor, that the hand-made article owes its higher price to the fact that human brain has guided human hand in its production, should be impressed upon the child's mind.

Since "abundant food hastens maturity, namely, abbreviates the recapitulation process," advantage may be gained by placing the child in environment rich in suggestion, by furnishing the materials for discovery and invention, so that he will find himself possessor of a rich and varied experience, not by mere information, but by personal acquisition.

The growth of the body follows an even line of gradual increase from five to eleven, and at about eleven and a half makes a decided upward rise of rapid increase; and, since all energy is one, it follows that in the periods when less is required for the body more may be given to the mind. Hence the years from five to eleven are the school years in the sense that the child may be abundantly fed with the facts accumulated by the race, in order that he may have the richer store to draw upon in the next period, from eleven to fourteen, when the stirring forces within need outlets for their race instincts, in order that the fancies may not be turned within and so become mere morbid phantoms, instead of realized visions. The imagination should be cultivated thru the use of materials in building up real forms. Creative industry is essential to a lasting

growth of true imagination, not that sentimental reverie which too often passes under that name.

By the age of eleven, girls are ready to consider the care-taking which is to be their work in the world. They love responsibility and are inspired by it. They enjoy work, even what the fine lady calls menial work. They are still in the race epoch when work was a pleasure because of the results obtained; there is then a delight in the mere doing, when the end is not far off, and it is nothing short of a wicked waste of nature's forces to deprive girls of this unreplaceable stimulus to mental effort.

Give to the girls, then, an opportunity to develop normally, to care for things, to handle things, to build up, according to their own devices out of materials furnished, certain creations of their own fancy. Expression of ideas is not confined to painting pictures. A bonnet or a dress can and should express the individual's thought.

If brain development is a consequence of bodily activity, then the child should be encouraged to use his bodily powers. Because the news-boy by his varied activity has learned much of the evil of the world, along with its wisdom, shall we keep back our children from competing with him in sharpness of wit and keenness of intellect? If children have no homes, or if children are taken from their homes, where they should learn all arts of daily life under the best conditions, the foster home, i. e., the school, must make up to them for their loss, and it can, if it will, do even better and with more intelligence in certain directions, because of a broader outlook over race conditions.

Once again let us ask: What does the young savage need in order to make him a civilized man? He needs, in addition to food for the animal, clothes and shelter. He needs to keep these and himself clean. He needs pleasant surroundings—color, form, flowers, music—to express his ideas and yearnings. All these stimulate him to imaginative thoughts looking forward to the future. He needs a mastery of the forces of nature, in order to minister to his wants and to give him that sense of power, that oneness with the creative faculty, which is man's distinguishing characteristic. There must be awakened early this sense of power, of mastery over environment, while yet no fear of consequences is known, and before cold calculation destroys spontaneity.

What can give this sense of power except the early knowledge of, and control over, matter? The child who makes a boat or a steam engine, who puts up a telephone, has a greater sense of power than one who only does what he is told to do, because he is told to do it. Book learning and obedient manners are all right and suitable, but they are not all, and they do not, in the child, advance civilization, because they are not the expression of the child himself, but are added from without.

I envy the child who rides a bicycle without learning; he just jumps on and rides. We should give young children a chance to do things. They

do not require much teaching. We teach too much. The child is far quicker than the adult to grasp what is suited to him. We present to him something which he cannot grasp, the large end, and he wisely refuses it. We call him stubborn, when he is only wise. We forget that the abstract is arrived at after much experience with the concrete. We must not deprive the young intelligence of the satisfaction of seeing the work which is the joint product of his hand and brain.

A most suggestive series of experiments on animal intelligence has recently been made, which indicates that the animal learns by doing, by his own discovery of how to do, and that this individual discovery makes a brain groove which is persistent and permits the action to be repeated without effort; also that no amount of teaching can replace this sense of individual discovery. Pascal, wiser than his time, says: "We are more easily persuaded by the reasons we ourselves discover than by those which have been suggested to us by others."

Here, then, is a lesson as to the manner of taking the child thru the race stages. He must be allowed to make these useful grooves early, so that his later conscious effort may be available for higher endeavors. Apparent failures may be the most productive experiments.

If the habit of care-taking, of responsibility for the welfare of the household, of the daily doings of the thousand and one things which insure the well-being of the family, is essential to women; if the race is not only to be preserved, but advanced, then these grooves of habit should be made early, while the child, girl as well as boy, is one bundle of activities, only eager to be used, which may just as easily fall into the lines of constructive as of destructive application.

It is contrary to all laws of race development to allow the child to pull to pieces without putting together again. The kindergarten teaches wisely in this, but later, unfortunately, botany and zoölogy are often chiefly taught by dissection, involving the destruction of the life which has built up the delicate structure. The productive ideal in education should keep the constructive forces to the front, until sufficient progress has been made to understand the necessity for some analytical work before a further constructive action can follow. Not until the age is reached when a clear comprehension is acquired of abstraction and of a connected line between the concrete and the abstract idea, when the cycle so evident in all nature can be understood in its entirety, should this analytic habit be formed.

It is claimed by many that women cannot observe, are not good scientific experimenters; that as medical students, for instance, they cannot use either eyes or hands as they should; in short, that they are merely imitative, not inventive, and, therefore, that they are in a less advanced state of civilization than men. I believe that this is a true indictment, and that it is true in the college laboratories and university class-rooms because it is true in the daily life of the household, and that this household life is the

place to begin a reform, if the higher intellectual life of women is to be influenced. The lack of sympathy with the great industrial progress of the century is apparent in every house, the lack of original thought is apparent in every woman's dress. Blind bondage to custom is shown by the views women take of all new and larger questions. I do not believe this is because of any inherent inability to advance with the race, but is solely a matter of education and of habit—"that purgatory in which we suffer for our past sins."

It is, perhaps, not too much to say that women are—today—the stumbling-blocks in the way of higher industrial, social, and ethical progress, and that they remain so because the leaders of educational thought neglect the path by which advance would be rapid, and refuse to see the value of a study of the history of industry as a synthetic element now lacking in the education of girls.