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An Experimental Project in Village Health Work

by

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THE WRITER.—Erdman Harris graduated from Princeton University, receiving the degree of B.A. in 1920. He taught English for a year at the Hotchkiss School, Lakeville, Connecticut; studied at Edinburgh and Oxford, 1921-1922; was Associate Secretary of the Philadelphian Society (Student Y.M.C.A.) at Princeton University, 1922-1923; studied at Teachers' College, New York City, and Union Theological Seminary, 1923-1925, receiving his M.A. in Education in 1924. He has done a great deal of work in boys' camps, schools, churches, and at conferences.

He was appointed to the Faculty of the American University at Cairo in 1925, and is serving as the director of the department of Philosophy, Religion, and Ethics. He is a Minister of the Congregational Church, released by the New York City Congregational Church Association for missionary education abroad.

EGYPTIAN VILLAGE LIFE.—Over four-fifths of the people of Egypt live in villages. The villagers are indeed the backbone of the country. Their work is largely farming, and their chief crops cotton, corn, and vegetables, although there is a bewildering variety of products grown on a small scale. The houses are usually built of sunbaked mud bricks, topped by thatched roofs, on which a great deal of the work of the household is done, in the sun. In every hamlet, there is usually to be found an enclosure under some trees beside a pond, furnished with benches or chairs, where the men gather to talk shop and politics. Almost every town boasts a mosque. Domestic animals of every description abound. Geese, chickens, pigeons are to be found in large numbers. The head men of these towns are called omdas, and each is extremely influential in his own bailiwick. Egyptian village life, though colourful and picturesque, is, needless to say, unsanitary and unprogressive. The villagers, however, are responsive and hospitable.

THE INSTITUTION.—The American University at Cairo is an institute of higher learning located in the capital of Egypt in a block adjacent to that occupied by several of the Government Ministries and the Egyptian Parliament House. Through its three divisions, the College, the School of Oriental Studies, and the Extension Division, it tries to serve Egypt's needs. It makes use of the educational method and relies upon the Christian dynamic. Its purpose is the social, intellectual, moral and spiritual uplift and development of Egypt and especially of Moslem peoples. Its methods are those approved by modern science. It is trying out the project as a tool for the accomplishment of its aims, and this paper is an account of one of its experiments.

AN EXPERIMENTAL PROJECT IN VILLAGE HEALTH WORK I

A few years ago two of the teachers at A.U.C. had made trips to villages on Sunday mornings for the purpose of preaching to and teaching the **fellaheen** (peasants). This gave us our idea for a project in connection with our ethics work with the Sophomore class. In consultation with Dr. Fakhry M. Farag, an Egyptian dermatologist, we decided to pick out one village and concentrate on it for one entire term, presenting to the people, by every means at our disposal, a few simple basic facts about health. As Dr. Fakhry had some personal and professional connections with several towns in the Mudiriya (Province) of Menufiya, we let him make arrangements for us. The village of Miniet-il-Arus was select-

ed for our first efforts. Bahgat Bey is the leading landowner of the town. His nephew is the Omda (mayor). We were assured of an hospitable reception.

Mr. Cleland of the Division of Extension had for many years been interested in tackling such a job as this. He kindly placed at the disposal of the Ethics group his own private automobile. He gave unsparingly of his time and influence. So it came about that Dr. Fakhry, Mr. Cleland, and I made our plans to begin our experiment on the morning of Sunday, November the 7th, 1926.

Prof. Howard Warren, head of the Psychology Department at Princeton, was visiting Egypt at the time, and Mr. Cleland invited him to accompany us. We took along every student who was to participate in the work, except one who was overcome by "morning lassitude" and never showed up. Our plan was to take all the workers on the first and last trips, but only a third of them, in rotation, on the others. We called these thirds "teams". So "team No. 1" would go one week, "team No. 2" the next, "team No. 3" the third and then "team No. 4" again the fourth week.

II

The cavalcade of autos started from the University gate at 8.45 in the morning. We picked up Dr. Fakhry at his home, and Prof. Warren at Shepherds' Hotel. One of the students, the son of a pasha, had secured the family Ford for the occasion. Mr. Cleland and I had our newly-purchased Dodges. So, fifteen strong, we started out through Shubra towards the Barrage. We really did not know what was ahead of us. We did not know exactly what we would find at Miniet-il-Arus, how things would be set up for us, whether or not we could secure a hearing. We really were not sure what subjects we could present, or how much ground we could cover. It was all more or less of a shot in the dark.

We left the Barrage behind. At a little hamlet on the Nile called Bet Yusef, one of Bahgat Bey's henchmen stepped out

into the road and waved to us to stop. He had been detailed to show us the way; and it was certainly fortunate for us that he had. A few hundred yards beyond where he jumped upon the running-board of the first car, we were directed to turn off to the left, and from then on for half an hour we bumped along over primitive country roads and bridges, through narrow village lanes crowded with children, geese, chickens, goats, dogs, sheep, camels and donkeys, beside rich fields of cotton and corn, until we landed at our destination under the trees in front of the Bey's house, beside a muddy "birka" (pond).

In a small compound, with benches all around the inside except for a gap at the entrance-gate, the Bey had assembled the important men of the town. Some of them were very old, though of course they did not know their exact ages. Some of them were in their thirties. We got out and said "good day" all round. Then we entered the Bey's home and drank coffee. A remarkable portrait of the Bey's father scowled down at us from a gilt frame.

Dr. Fakhry then explained our mission, said that we would come the next week, if they cared to have us, and give a demonstration which would be very useful to them as citizens. Prof. Warren enjoyed very much studying the weather-beaten faces of these real Egyptians, who are indeed the backbone of the country. It is upon their shoulders, in the last analysis, that the burden of taxation falls. Upon them as a base is built whatever of progress or luxury the country attains.

After being assured that we would be heartily welcomed if we came the next week, we went out into the street and divided into three groups. Some of the fellaheen took half of the students around the northern section of the town, others took the second half around the southern section. Cleland, Prof. Warren, Fakhry, and I visited the school, met the headmaster and some of the teachers, explained the purpose of our com-

ing. This school is one of the free institutions supported by the government of the Mudiriya. We realized at once that if we could only instruct these students in the elements of healthful living we might do a great deal more for the future of the town than by trying to change the set habits of their elders.

On our way back to the automobiles we noticed a dead dog lying in a pool of stagnant water right between some houses and the corn-shocking compound. We pointed this out as a breeder of disease. (A week later, on our second trip, we looked for the carcass, but it had been removed. Cleland says we must take the credit for this bit of sanitary work.) We came, we saw. We saw the babies' faces covered with flies; we saw refuse and manure in the streets; we saw people drinking from the dirty irrigation ditches. But we also saw the tremendous potentialities: the strength of the people, their willingness to be shown new things, the richness of the soil, the cleansing power of the sun, and the untold promise of the school-boys. We left for Cairo after two hours in the village. We began to see how we could begin our work. We looked forward eagerly to the next week when, with a smaller group of students, we should actually commence our demonstrations.

III.

Working on the theory that "seeing is believing," Dr. Fakhry requested the Science Department of A.U.C. to lend us some microscopes for the second trip. Mr. Cleland found that it was impossible for him to accompany us, so Mr. McQuiston (the biology teacher and agricultural expert) came along. He superintended the preparation of the microscopes and slides. Again we made our headquarters the house of Bahgat Bey. We stood the three microscopes on the center table and requested the fellaheen to sit on the chairs and couches around the walls while Dr. Fakhry explained what we were to do.

We brought with us, in a test-tube, some water in which a dead frog had been kept for a few days. The bacteria were extremely spectacular in this specimen. We knew it would be easier to convince the peasants of the nature of the impurity found in their own canal-water if we brought along a specimen containing some full-fledged paramecia. We put some of our sample on a slide and told them to look in the microscope, one after the other. Their reactions were very amusing. One old fellow fairly shouted "Ya salaam! Zaiya samak!" ("Great day! just like fish!") Dr. Fakhry and the students then tried to convince them that the water from their irrigation-ditches was just as full of germs as that. They accused us of bringing some specially prepared liquid to frighten them; they were right!

Nothing daunted, however, we called for a cup of their canal-water and a glass of water from the Bey's pump. Upon examination it was found that the canal-water did contain millions of harmful microbes but they were not as active nor as spectacular as those in our specially prepared water.

Nevertheless, the main issue was simple. The water from the pump, examined in the microscope, was relatively clear. The other water was dirty. It was this contrast that we wished to drive home. Our object was to make them see that if they drank pump-water and refused to drink ditch-water they would avoid one of the main causes of disease in Egypt. They understood this, but here we struck a snag entirely unexpected, foreseen not even by the Egyptian students themselves, nor by our native Dr. Fakhry. The snag was a superstition. One fellah warned us that it was very dangerous to drink the clear water! "Dangerous?" we inquired. "How was that?" He maintained that if a man drank pump-water continually, he would lose his sexual potency; that if a woman drank it, she would lose her hair! At this there was much nodding of heads.

It was with great difficulty that Dr. Fakhry exploded this notion. Maybe he did not convince many of them. After his refutation, the student-workers mingled with the people and argued the point at some length. The consideration which finally won many of them over was that the progressive men and women in the cities drank nothing but pump-water, and suffered neither loss of power or hair. They could not very well deny that! Then one of the religious teachers stepped up to have his look. He felt that he must show off his learning, since the **effendis** (modern young men) were exhibiting theirs, so he quoted from the Koran: "For every life there is a period written. It can neither be hurried up nor delayed". Then he expounded, "Therefore, O Your Excellency the Doctor, it is all folly for you to say that these animals can kill a man. If the man's time has come to die, he will die. If not, he will live." To this remark, there were murmurs of approval from the elders who were listening intently, for they were all Mohammedans. What would this Christian doctor have to say to the Holy Koran?

Dr. Fakhry realized that he must turn the tables on the old fellow, or else the morning's lesson would be wasted. "O my brother", he said, addressing the sheikh, "You have studied all the learning of the holy books and the traditions; and you are a wise man. So will you please tell me what you do when you are on the railway track and hear the engine whistle? Do you continue walking on the track or get off?"

"It is well known", answered the flattered sheikh, "that any intelligent man will get off the track or else he will be killed."

"You answer discreetly, O Teacher, for you do not believe that it is written in Paradise that you are to die by that engine, and so, you do not defy it but wisely let it pass. Now, simply imagine that these microbes are like the engine, able to kill you if you do not keep out of their way; and believing that your fate is not

to die by them, you carefully avoid them." At this the peasants laughed and the sheikh modestly retired, not knowing whether he had made his point or not, but rather suspecting the latter!

Mr. McQuiston then showed the group some specimens of typhoid germs stained on slides. The A.U.C. boys explained these to them. We wound up our demonstration by a concluding speech of gratitude for their coffee, hospitality and attention, given in colloquial Arabic by a student, to which was appended a straight-from-the-shoulder appeal that those who heard the scientific truth about their water-supply should constitute themselves the teachers of the village and lead their fellows out into a knowledge of how to keep well.

Then we packed up our equipment and bumped back to the main road, more cognizant than ever of the difficulties that lay ahead.

Let me, then, summarize the next five trips. During our third visit, we concentrated our attention on the school, demonstrating the difference between canal-water and pump-water to the pupils and requesting them to write an essay on the subject. Mr. McElroy of the biology department came along to help us with the microscopes. Dr. Fakhry prepared a paper on "water", which we had printed. So, on the 28th of Nov., the Doctor and Mr. Cleland both being unable to come with us, Mr. Leete, our chemistry professor, drove the college car to the village with us. One of the students gave a lecture on the subject of Dr. Fakhry's pamphlet. We then distributed these in large numbers to the **fellaheen**, (peasants) many of whom could read; and told them to spread the news contained therein throughout the whole countryside. One new thing was done. A fly's leg was shown under the microscope to prove its bacteria-carrying ability. This paved the way for our work on flies the following week. Here again one farmer was amazed at what he saw in our instrument. He said that it was as

big as the leg of a camel and much more hairy.

Right here it should be noted what a keen interest the natives took in the snap-shots we had made of our work. We arranged it so that, in one way or another, every important man in the town had a picture of himself in some group or alone. These photographs will probably prove to be among the most cherished possessions of the people. If nothing else recalls our work I am sure they will. The first act of our weekly ritual on subsequent trips was the distribution of pictures. We endeavored not to disappoint any of these who legitimately might expect to be given one. If we found that we had missed out, we made our promise to bring more later a cause for increased anticipation of our return.

It was at this time that we learned that Sheikh Mustapha the village **imam**, (religious leader) was giving talks on the subject of our visits, on Friday in the mosque after the prayer. This was naturally highly gratifying to us, as it showed the interest that was being taken, and also made possible a wider audience for our message than we could reach ourselves. Our printed papers on "water" and on "flies" (two weeks later) helped greatly to hold these Friday presentations down to facts. The Sheikh himself made the somewhat extreme statement that since our visits had begun, nearly everyone in the village was trying to drink only pump-water.

On the fifth trip, the students answered questions about our work and gave lectures on fly life, how many times the fly eats and excretes, its anatomy, its ability to transport germs to faces and food. Methods of preventing flies from giving babies disease were outlined. "Shoo the fly" was a slogan suggested for use throughout the town.

One interesting thing was our discovery that the essays we requested the students to write on their own, were all practically the same, and composed in faultless classical Arabic! A strange coin-

cidence! It evidently happened that the headmaster wanted us to get a good impression of the mental capacity of his boys. He might have been a little more subtle about it. Variety would not only have been the spice of life but the indication of independence!

Amir Effendi Buktur and Mr. Phillips of the Physical Education Department also went along with us on the sixth and seventh of our journeys. Our seventh trip was given over to the inspection of living-conditions in the town. Of course, they were appalling. The ventilation was poor, the rooms small and dirty, animals omnipresent, insects in abundance. Nevertheless we found that much of the work done at home was accomplished on the house-tops in the sun. As Dr. Fakhry has remarked, "Without the sun most of these people would be dead". Universally, we met with hospitality, courtesy, and good humor. On the 19th of December we made our last trip for 1926. We decided to return once more to Miniet-il-Arus on the 16th of January and check up, if possible, on the results of our efforts.

V

January 16th. dawned bright and fair. We had had our Christmas and New Year festivities. We had had many new experiences. Our trips to Miniet-il-Arus seemed to lie far behind, to participate in the activities of a finished year. But we knew that we could not let the matter rest where it was. So off we sped, again fifteen strong, along the old familiar roads, bumps and bridges, with the smell of country dust in our nostrils and the breath of the brisk winter air on our cheeks.

We gathered the crowd together in the enclosure under the tree beside the **birka** (pond) for a last consultation. This, though the villagers knew it not, was to be in the nature of an oral examination. Many amusing things happened. One old farmer swore that he had told all his relatives not to drink or wash in the water from the irrigation canals. At that

moment there passed a maiden with a water-pot on her head, bound for the biggest canal. Dr. Fakhry stopped her and explained to her that the water from the pumps was far superior to that from the ditches for intimate internal and external use. He wanted the old fellow to tell this to her himself. Everyone began to snigger. She was his niece! We then asked him why she was disobeying his explicit instructions. Not to be caught, he stoutly maintained that she was absent the day he gave his relatives the lectures. A roar of laughter greeted his remark.

The village grocer was questioned very closely about his shop. He had been lectured one month before on the subject of flies. It had been suggested that he put cloth over his wares. He now volunteered the encouraging information that he had secured large glass covers for his goods, which permitted his customers to inspect what he had without allowing access to the flies.

The Omda made for us a list of the pumps in the town together with the names of their owners. There proved to be only 57 in a village of 2500 souls. We urged that those who were fortunate enough to possess them should share their use with the neighbors. Whether this suggestion will have any effect or not we do not know. Many of our recommendations were necessarily made on the spur of the moment to meet a practical situation.

Our most encouraging encounter was with the school-boys. It was just closing-time of the morning session (11.30 A.M.) when we arrived, so the headmaster formed them as a drill and allowed us to examine them. One by one a number of them stepped forward at Dr. Fakhry's request and told his experiences in helping the villagers obey our advice. It seemed true that if the rural towns of Egypt are to be saved from many of their unfortunate practices, little children will have to lead them. In some cases we found that adults whom the boys met had tried to tell them that our talk was

simply **kalam farigh** (nonsense), but the students had stuck to their guns because they had seen things with their own eyes. We heard another gratifying thing: that the teacher in the school had used our papers on "flies" and "water" as the basis for many a lesson in reading and writing. If such an impression could be made over a period of eleven weeks, it would seem an easy matter for the government to accomplish wonders by systematic health education in all the schools for a period of years.

VI

And what about the effect of all this on the A.U.C. students who did the work? They have made their own testimonies in writing. They claim to have derived a great deal of benefit from the trips. Here is a list of the things that one or more of them learned: something about the geography of that part of Egypt covered by our journeys, the flora and fauna of the Delta, the agricultural life of the people, their methods of irrigation, the character of village life, the specific problems that the people face, methods of using the microscope, the real differences between dirty water and clean water, the scientific facts about the fly and its influence, bacteria as the cause of disease. Some students claimed they got a thrill from the fact that they were trying to help others. Some said they came to know the people of their own country better. One or two were discouraged with the conditions they found, the superstitions they encountered. All testified to their interest in the project from beginning to end.

VII

The philosophy of education underlying this experiment was, of course, the conception that one learns by doing. Furthermore, in the one hour a week spent in class, the interest of the students was very keen owing to the fact that they had participated in a purposeful enterprise themselves. When we stud-

ied the infant mortality of Egypt, the picture in their minds was of babies they had actually seen. Theory was eagerly devoured in an attempt to found their experience on a scientific basis. Sociological problems assumed the nature of living issues when set over against their health education project.

Members of the class presented the results of their investigations to their college-mates during the assembly periods on three different days. The college press club prepared articles on the trips for the local newspapers. Even though the scheme was initiated by the faculty, at every point suggestions from the students were welcomed. Certainly the interest was present, for we had to ask the boys to give up five hours of their only free day in seven every fourth week, and they did it. Only three students failed to report for the work and they only once each. At the beginning of this new term

(February, 1927) they are eagerly enquiring whether we can go again on such a series of expeditions.

VIII

The expenses incidental to this health experiment were not great, but were taken care of through the generosity of an American gentleman interested in seeing such a project as ours tried out. I cannot express too strongly the feeling that this sort of work could be done, with great profit to Egypt and her sons, if put into the regular curriculum of the schools. Lessons in geography, geology, botany, biology, chemistry, agriculture, ethics, history, economics, sociology, could all be given with such a health-education scheme as a central enthusiasm. We offer this as one small contribution towards the solution of the social problems of the country.

