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A Pasteurian war plan to save Africa from AIDS

Garance Upham Phau describes how followers of Louis Pasteur developed medical practice to overcome the devastating effects of epidemics in Africa.

From the speech of Garance Upham Phau, to the Nov. 28-30 conference in Philadelphia on the use of AIDS as an instrument of genocide (see EIR, Dec. 15, 1989). Mme. Phau edits a newsletter in France, Médecine—SIDA—Sentinelle, and works with the Fusion Energy Foundation in Paris.

A year ago, an official from the Ivory Coast Health Ministry was reportedly arguing with industrial nations' representatives: "Can you tell us that the solidarity in the face of AIDS, which you are always talking about, will persist after treatment and vaccine is available? How can you give us this assurance, when today millions of our children die from all the diseases—tuberculosis, polio, measles—which are preventable diseases and for which a cure *does* exist?"

Say a cure for acquired immunodeficiency syndrome were found today: All the infected people in Africa and Latin America would still die. Why, and what we could do about it, is the subject of my talk. What must be understood by the layman is that the person infected with HIV, and being immuno-depressed as a result, will come down with whatever diseases, whatever pathologies exist in the area—TB, leprosy, kala-azar—and will *die* of TB, leprosy, kala-azar.

So two things must be done: There must be treatment available for *all* the diseases afflicting people in the tropics. What would be the use of saying, "I have a cure for AIDS," when the HIV-infected patient is dying of TB? There ought to be concomitant administration of anti-viral therapies, immunostimulants, and/or vaccines, as they become available to prevent the manifestations of HIV (neurological and immunological) that lead to what is called AIDS.

The story of sleeping sickness

To accomplish that task, I wish to communicate to you the untold story of sleeping sickness.

When Pasteur discovered the fermentation of grapes, he understood that wine is a disease of grapes—that is, that an outside *live* agent, "yeast," turns grapes into wine. So in the 1860s, he thought and understood that any disease of man, of animals or plants, is the result of a live organism, a "microbe" that it is not "innate" to man but comes from outside, and putrefaction is akin to the fermentation of grapes. So, he imagined what good could be accomplished if he, with the help of his friends, trained disciples in his method and sent them into the tropical countries to rid them of diseases by mastering the ecology of tropical climates' plant, animal, and human microbes and their effects, and by the same token develop farming.

He wrote to his friends, "If only I had a few millions, I would tell you all, my friends, Roux, Calmette, I would tell you: 'Come, we shall transform the world with our discoveries.' " One hundred years ago exactly, with the opening of the Pasteur Institute, Louis Pasteur was able to begin forming cadres to go into those areas.

These followers of his, scientific explorers who also created leading research centers, worked anonymously at their task, and many lost their lives. They were able to bring about a formidable increase in birth rates by eliminating many of the causes for infant and childhood mortality, and by creating the basis for agricultural development that would permit the feeding of more people. We owe to Pasteur and his followers the extraordinary expansion in the world population which

has been seen in the past 100 years.

So I am here to humbly bring you a little bit of the scientific method of a man whose main accomplishment in life was to have created, to have permitted, the formidable coming into being of black, yellow, and white people.

The first mission of exploration was Dr. Martin's 1905 research into sleeping sickness, which was carried out in the mountainous area of Guinea, called the Fouta Djallon. They traversed 100 miles by foot, with a handful of local mountaineers, a cow in order to vaccinate the villages against smallpox, and other animals, which they would infect with pathogens in order to bring samples back to the laboratories, since refrigeration did not exist. He went from village to village, looking for parasite-infected people and animals, looking for the insects, such as the tsetse fly, which carried the parasites, and living hand to mouth, eating whatever the villagers provided, including rotten eggs.

But therein, in the first and second principles of a mission, lies the origin of medicine: 1) Go out and find the patients, and 2) establish prophylaxis by understanding the ecology of disease, which means the life of the disease. Hundreds of missions of this sort were undertaken between the 1890s and World War I, with medical personnel crisscrossing Africa, trekking thousands of miles.

Sleeping sickness is a disease induced by a parasite known as a trypanosome. The trypanosome that causes sleeping sickness reproduces biologically in one type of insect, the famed tsetse fly. Initially the disease is more or less "silent," that is, the victim is ignorant that he or she has contracted the disease. The patient may have a low fever and swollen glands—nothing that today, in 1989, would make a villager seek help of a physician tens of miles away by foot. By the time the person becomes ill, the patient is incapable of walking to a physician, even were one there. The disease strikes the nervous system, the person becomes emaciated, loses weight rapidly—ultimately looking like an Auschwitz victim, skin and bones—sleeps most of the time, and becomes half-demented.

In the countryside today, Zairean physicians told me, it is sometimes hard to tell whether a patient is dying of AIDS or of sleeping sickness. At the beginning of the 1900s, sleeping sickness threatened to depopulate Africa, much as AIDS does today. For example, regions of Cameroon lost half of their populations. With the construction of railroads and World War I, the moving around of large populations brought the disease far and wide.

Eugene Jamot: 'Africa, wake up!'

Colonial administrators and military commanders denied the existence of the vast epidemic, but one man arose to assume responsibility for fighting the disease: Eugene Jamot. Jamot swore he would "awaken Africa" from the devastation of "sleeping sickness." Jamot, a military physician trained in Pasteur's method, demonstrated that the disease was

threatening the entire continent, and laid out the scientific military campaign that could stop the epidemic. If Jamot had not done what he did, there would probably not be many souls left in Africa today.

I am going to tell you a secret: Sleeping sickness is back today afflicting man and cattle. A World Health Organization report in 1986 acknowledges the problem. Chad asked for help to fight the epidemic in 1988, Mali's cattlemen are up against it. Furthermore, the two types of tsetse flies prevalent in western and central Africa respectively correspond to the areas of prevalence of HIV-2 and HIV-1.

Jamot recruited a few people to identify the parasite and administer the new drug Atoxil, which, though unable to cure the disease, cleansed infected patients' blood, thereby disrupting the infection cycle. In 1917-18, Jamot and his men examined 90% of the population in the area of the Oubangui and Chari rivers, along 1,100 kilometers, going village to village. In Cameroon, he reported that "in certain groups of villages, we were astonished to find out that 97% of the people were already infected, entire villages had disappeared or were about to disappear. The disease was spreading westward like a brush fire."

He expanded his prophylaxis team independently of colonial administrations, and trained 400 cadres in 1920-22 in Ayos. The evaluation carried out in 1928 the undertaking of the missions had been: There was a 40% depopulation of entire areas in five years. Villages were found to have infection rates ranging between 17 and 77%. A permanent prophylaxis mission was established in 1926.

Speaking of the personnel in Jamot's brigades, one observer noted: "The personnel, these doctors, these hygiene agents, these nurses, who without a minute of rest, for three years, have crossed all of Cameroon, under very harsh conditions, on foot, going through every village, working without a day off, without Sunday's rest, 10 hours a day, sometimes 11, their eye on the microscope. . . . All these people were paid back only by the fact that their leader was an exceptional man, a sort of god, and it is with a sort of enthusiasm—there is no better word than 'enthusiasm' for the way the teams forged ahead. Each one was convinced of his special place in the medical world; to be part of a mission was an honor, was glorious."

Jamot explained his method to the Society for Exotic Pathology in 1920: "Medical prophylaxis as such aims at destroying by chemical means viruses [the original term for all viruses, parasites, and microbes] circulating in the blood of patients. To realize that task, one must *seek out the patients*, treat them, and if possible cure them. This implies the periodic careful exploration of all the infected zones. And it must not be rapid inspection tours with hasty, approximate diagnosis, followed by insufficient or useless treatment, but rather we must visit and visit again, successively, all the villages, examine all the inhabitants one by one, and on the basis of a microscope-based diagnostic, do the nominative

census of all the people infected with trypanosomes, who will then receive treatment.”

When the first real medical “treatment” for trypanosomiasis made its appearance, Jamot argued with success, that there was no reason only the white colonists should have access to treatment, and that the black masses have as much a right to treatment as anyone. One hopes today, that voices will make themselves heard in the advanced sector to drive home the same argument for the expensive anti-viral therapies against HIV.

Jamot polemicized strongly against the argument that sleeping sickness could just be handled like any other disease, by general practitioners located only in townships, or that colonial rules and bureaucratic procedures could be abided by in time of danger. “And if salvation demanded it, we should not hesitate to create this state within the state, even if it means stepping on some people’s pride.”

His prophylaxis services, independent of colonial administration, respecting no borders, screened 40 million individuals in the 1930s. In the meantime, he was scandalized and stripped of all responsibilities in Africa. In 1944, Vaucel extended the method to the other tropical diseases, while Richet established a system for screening leprosy patients by “margerite” rotating teams with (periodic) treatments, and rigorous census of all patients for bacteriological and clinical control and followup.

Jamot’s ‘MMAAPP’ principle

With independence in the postwar years, the new African nations set up the Organization for Coordination and Cooperation for the Fight against Major Epidemics (OCCGE) in 1963 and the Organization for Coordination for the Fight against Epidemics in Central Africa (OCEAC) in 1964. Physician General Léon Lapeyssonnie, renowned in Africa for his struggle against meningitis and a world expert on parasitical disease, explained in the following manner the Jamot principles, which ought to be the bible of any serious health scientist today: MMAAPP.

M for Masses: To leave pockets of infections is to let a disease fester. In order to check for infectious diseases, one must go out to the population and screen each and every individual, regardless of whether he or she looks sick or healthy. In most diseases, the initial infection is invisible, or unapparent, but the person is contagious, and by the time the infection is visible, in parasitical and several other diseases, it may be too late to treat the person, and it is too late, in terms of the community, because the disease has progressed to other individuals.

M for Mobile: The teams must be constantly on the move, in areas which are 90% rural, such as the African continent. The team must go to the people, go to the community, go to the village. Go, and go back again to see if the disease has returned or has moved, and how patients are responding to treatment.

A for Arms: A team must have weapons, which today means antibiotics, vaccines, sufficient stocks of syringes, etc. You must realize that this is luxury in Africa, where hundreds of thousands of women still die in childbirth, because they contract tetanus during labor, and the vaccine, which costs a few cents, is not available. You must realize that only the privileged few have access to medicine, via black markets, and that the majority of the population has no access to essential basic medicine to treat common diseases.

A for Auxiliaries: Auxiliaries, such as Jamot’s first Congolese assistants, who were trained quickly at the Pasteur Institute in Brazzaville, are essential in order to multiply the efficiency of the operations—in much the same way as educated soldiers are for a good army—as well as what good can come only from basic training in scientific endeavors.

Today, I believe it could be a source of remoralization for our youth in both developed and underdeveloped countries to give those youth a few months’ training and send them out into the field. They might come back appreciating life, and with a sense of the importance of science, certainly better than Western fads and Coca-Cola culture.

P for Prophylaxis. Prophylaxis means that it is necessary to establish priorities for rapid interventions, like surgical strikes, into the disease process, followed by more refined “rebuilding” of the health standards of a given population. It was Pasteur who said, “I never thought of curing a disease; I always thought of preventing it.” Few people today in the industrialized nations realize that medical practice that aims first at protecting the whole community, precedes and partakes of development, and that curative medicine follows afterwards. No community has ever lived on the basis of curative individual medicine. Prophylaxis deals with the “collective” and historical life form of disease. It deals with pandemics, endemic diseases, and epidemics as such.

P for Polyvalence. Polyvalence means that today’s mobile teams ought to be equipped to specialize in sleeping sickness as well as in tuberculosis, in human immunodeficiency viruses, as well as in arboviruses [insect-borne viruses]. The choice of which specialists head the team’s deployment in one area would obviously depend on the suspected prevalent diseases in that one area. Then, there would have to be interstate collaboration and cooperation.

Finally, hygiene agents are necessary to do the “ant work.” This is somewhat of a pun, since these are the people in charge of insect surveillance and eradication programs. The hygiene agents, in the Pasteurian era, had a task they would still have today. In the 1940s, 13 million households were visited to be checked for insect infestation, for *Aedes stegomyia* (the flies that carry the yellow fever virus), or *Aedes aegypti* (the flies that carry the malaria parasite), the tsetse fly (which carries the “sleeping sickness” trypanosome), etc. It means eliminating areas of stagnant water near housing, spraying pests, control of river flows, cutting underbrush (where tsetse flies nest) around houses or cattle pens, or

providing screens in housing. No less important is educating citizens in surveillance methods. Insect surveillance also paves the way for the draining of marshes and the reclaiming of land for cultivation.

This is military warfare, because the enemy is alive. Charles Nicolle, a great Pasteurian and the founder of the Tunis Pasteur Institute, wrote, "The infectious disease is en-

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dowed with the characters of life: Those properties come from its animated cause and from the reaction of the cells of our organs which are living things. A disease, as all living beings, has a birth, a life, and a death, an end. . . . Disease has three forms of existence: individual, collective, and historical."

State of war on disease

Hence, an epidemic is comparable to an invading foreign army. Someone here was asking me about law pertaining to HIV-infected individuals yesterday. As in war, the law starts from the standpoint of the Constitution, from the standpoint of protection of the state as delineated in the Constitution. The state has the right and obligation to protect its citizens against foreign invasion; to do so, the law provides for state measures: 1) to protect the community from the epidemic; 2) to protect the community from the infected individual; 3) to protect the right of the infected individual, the right to care, the right to be free of the risk of contaminating others, the right to a decent life sustenance for him and his family when incapacitated by disease.

The AIDS epidemic, like any epidemic, is comparable to a foreign invasion. In response to it, our health authorities are basically saying, to paraphrase the French former Health Minister Barzach's slogan: "AIDS shall not go through me." In other words, "Each one of you run for cover and avoid getting shot. And if you do get shot, obviously your behavior was at risk, and if you do get killed, it's your fault." In contrast to that, Jamot's method represents basically sound war-winning strategy: 1) Gather intelligence on enemy deployment, e.g., on how virus travels, its speed, efficiency, and direction. 2) Raise an army, mobilize the resources to stop the spread of

the disease, and get the help to the afflicted. 3) Get the material means to fight the war, which for us entails toppling the present austerity policy. No one has ever fought a war from the standpoint of respecting a balanced budget. One cannot fight tanks with slingshots, any more than African nations can fight AIDS and associated diseases with aspirin. 4) Use flanking maneuvers to counter presently evolving epidemics, deploying screening and prophylaxis. 5) Shoot the enemy, with medicine and vaccines, develop R&D as fast as we can, bringing in the poorer nations to the ongoing effort with the richer countries. And, as Pasteur did, we ought to foster the coming into being of large research centers in tropical areas.

Jamot said that his "patient" was "people as a whole" and his enemy the virus. Perhaps the war-winning strategy of Jamot seems obvious to you; yet, present-day policy of international institutions in charge of health matters is precisely the opposite. For austerity reasons, and coinciding with the World Bank's abandonment of industrial projects in the developing sector, the World Health Organization adopted the policy labeled "primary health care" at the Alma Ata conference of 1978. Primary health care—along with the motto "Health for All by the Year 2000"—means stationary, unskilled, unequipped (e.g. no ELISSA testing equipment, no working microscope, no medications), often semi-literate, poorly paid or unpaid personnel are to safeguard the population against disease. One high-level European medical scientist in a position of responsibility in a West African country explained to me with straight face, that "primary health care means providing soap and water to the villagers."

In fact, it doesn't even mean that, because there is no clean water in the villages. A neurologist from Tanzania told me, during the recent Marseilles conference on AIDS in Africa: "If only we had a handful of antibiotics in the MST centers! We could really slow down the spread of AIDS (e.g. by treating genital ulcers). If only!" If only! Millions need not become blinded, crippled, or die, just because some bureaucrats are cowards, or evil, or both. As Dr. Lapeyssonnie, himself an expert on parasitical diseases for WHO and former head of WHO's Mediterranean office in Cairo, told me, "WHO could not act even if it wanted to!" I can tell you, that this is the best known "secret" in Europe among all the scientists and officials who know something about Africa, in contrast to WHO and home health ministries as such.

To conclude, I would like to remark on something that I deal with in amusement: I belong to the majority—that majority of humanity who has been, is being, or will be, maimed by a major disease—poliomyelitis in my case—and I am confounded, as well as amused, by the fact, as I once told the former French health minister, that present policy, far from protecting the human rights of the afflicted, is a policy of protecting the human rights for all viruses!

So, I appeal to you, for I wish to become a minority: Something can be done: It means war, a war against disease, a war on behalf of mankind, and we can do it.