

The frontiers of dirt

For the Greeks, hygiene was the ability to live in good equilibrium with oneself, with others and with the environment, avoiding excesses and keeping in good health. And today?

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From the most widespread spiritual practices, we learn that hygiene of the body and internal cleanliness go hand in hand. Scholars sustain that personal hygiene is biologically connected to the original nature of animals and hence of man. But what exactly is hygiene? There is no one answer. For the homemaker, it means detergents, rags, clean and shiny floors and bathroom fixtures; if there are children, diapers, baths and creams; for the architect, they are rules to be respected in order to ensure the living comfort of a house; for public administration it translates into urban norms, sewage systems, waste collection, purification plants, control of the quality of the air and of the water; for the physician, it means keeping germs and disease at bay; for the historian, hygiene is a key to interpret a people's evolution and level of civilization; for the anthropologist, it is the common practice of a person's daily cleaning habits and the interaction that this behavior can generate in the individual's social unit. Synthesizing, we could say that hygiene is man's aptitude to keeping dirt and waste under control in order to maintain an acceptable quality of the environment he lives in and hence, of his health.

THE RELATIONSHIP BETWEEN INDUSTRIAL, DOMESTIC AND PERSONAL WASTE IS VERY CLOSE-KNIT. Indeed, the inexorable urbanization process, overbuilding, the exodus from the countryside and the Mephistophelean development of the consumer society have altered (broken?) the equilibrium between man and the environment that provided for the natural re-absorption of wastes produced. But the Earth seems to be no longer able to receive and transform what man discards. And so waste becomes the uncomfortable witness of a non-virtuous circle, something to distance, to destroy - if we can - and possibly to forget, almost as if we were speaking about a behavior that, deviating from a natural biological cycle, inevitably turns against us, reminding us of the limits and the mistakes of our daily working.

THE BEGINNING OF THE XIX° CENTURY MARKS A HISTORICAL DIVIDE in the way hygiene and waste were considered. With the industrial revolution taking hold, the counterpart of the superhuman increment in production - thanks to machines actuated by powerful new energies - were air pollution and the production of wastes that were increasingly difficult to re-issue inside the biological cycle and which very often risked contaminating lands, waters and people. And it is still around the beginning of the XIX° century, with the birth of modern medicine and in particular of bacteriology, that hygiene becomes "public" and can thus develop and diffuse knowledge in order to eradicate disease (cholera, typhoid, smallpox, plagues) which periodically decimated a large portion of urban populations. In those years, Jean Noel Hallé (1754-1822), professor of medicine in Paris, introduced the concept that the physician and his work should consider the individual in the two aspects that influence hygiene: his or her personal characteristics such as age, sex, temperament, habits, profession, social condition, and environmental aspects such as climate, location, customs, laws. The passage from the idea of a traditional hygiene to a public one reflected a general interest by the State according to which the strength or weakness of a population - and hence of a nation - are directly proportional to the health of its citizens.

ACCORDING TO A RESEARCH CONDUCTED BY VALERIE CURTIS, director of the hygiene center at the London School of Hygiene and Tropical Medicine, our behavior in regards to personal hygiene has ancient origins that we share with the instinctive behavior of animals, and is focused on avoiding disease infections, awakening in the individual (and in animals) a sense of instinctive repulsion for what generates revolt. A sort of alarm bell that starts ringing when our senses detect a danger. The research focused on the behavior of several different types of animals: from octopus-

ses that expel toxins in the form of vomit, to lobsters that avoid contact with other lobsters affected by viruses; from ants that cleanse themselves from pathogenic fungi, to bats that remove ectoparasites; from chimpanzees that cater to the cleanliness of their penis after mating, to birds and mammals that regularly clean nests and dens from their feces. Animals that have been able to incorporate the instinct to defend themselves from parasites and hygienically virtuous behaviors into their genetic pools have won continuity in the evolution of the species. Verification made on man, performed through interviews in different parts of the world like India, Africa, the Netherlands and the UK, invited participants to explain the sensations they felt in the presence of feces, body fluids, food gone bad and slithering animals. The interviewers had difficulty in motivating their reactions, limiting themselves to statements like "I can't explain it, but it's disgusting." These indications were then tested with an experiment performed on the Web asking participants to assess the degree of acceptance/repulsion they felt while viewing a series of images representing the same situations object of the interviews. Over 40,000 participants in 165 countries confirmed the hypotheses: all the images containing elements that "risked" causing disease scored higher on the repulsion scale.

HISTORICAL CONSIDERATIONS ON THIS PRINCIPLE ARE BASED ON THE SIMPLE ASSUMPTION that if prehistoric man had not adopted correct measures to distance parasites in order to maintain his environment clean from feces and wet waste and distanced sick individuals, mankind would have had no future.

Cave art showing men without beards and rudimental artifacts (seashells and combs) found in excavations sites suggest that personal hygiene care has remote origins. Social rites and religions have adopted these fundamental needs and made burial or burning of cadavers socially relevant operations, as their decomposing constitutes a danger to man. To the Greeks we owe the birth of the cult of Hygieia through which virtuous behaviors that helped keep in good health were indicated. For the Romans, with their thermal baths and water ducts, hygiene became an integral part of the process of civilization. The widespread epidemics that afflicted the Middle Ages up to the mid-1800s could cast doubts on the idea then hygienic defense draws sufficient strength from individual instinct, but if we consider science as common heritage, we find - through the work of scientists like Leeuwenhoek, Pasteur, Koch, who initiated knowledge of microbiology - the ability to regain a balance to defend ourselves from diseases that can threaten us.

INSTINCT AND KNOWLEDGE HAVE HENCE HELPED US TO REFINE OUR ABILITY TO MANAGE OUR OWN HYGIENE and so to lengthen our prospects of permanence on this Earth. But there are still several areas of our "hygienic" behavior that are unexplainable through this thinking and that constitute important social problems. Obesity, smoking, alcoholism are commonly recognized in our opulent society as among the main causes of dysfunctions in our health, strengthening the idea that, in order to achieve a healthier lifestyle, the most effective way is certainly to change behavior. Institutional information campaigns to reduce these "dangerous habits" have done little or nothing against the power of solicitations to consumption and the Mephistophelian hammering promotion by the media that invite us to practice styles of life that are not very virtuous.

"TO PUSH PEOPLE TO BEHAVE DIFFERENTLY, LOGICAL REASONING IS NOT ENOUGH: WE MUST APPEAL TO THEIR EMOTIONS", sustains Valerie Curtis talking about her experiments. "If everyone washed their hands with soap after having been to the bathroom, over three million human lives could be saved because diarrhea and respiratory pathogens - the biggest killers of children - travel on hands. It's not enough to teach what germs are. In a recent attempt to reduce the number of diarrheic diseases in children in Ghana, to convince people to wash their hands with soap, we developed a campaign to make them experience disgust for people who did not do so. TV adverts, for example, showed a mother who, after having been to the toilet, had a strange spot on her hands, which was then virtually transferred to her son's food. Even without using rational arguments on germs or bacteria, this campaign increased the number of Ghanaians who wash their hands with soap by 41%."

This shows that our behavior in regards to important themes like hygiene, besides being determined by instinct and rationality, is also strongly influenced by our need for social approval. The improvements introduced by science need time to become part of our nature and of our experience. Sometimes, a simple gesture is enough to produce a great change. So let's all wash our hands. •