

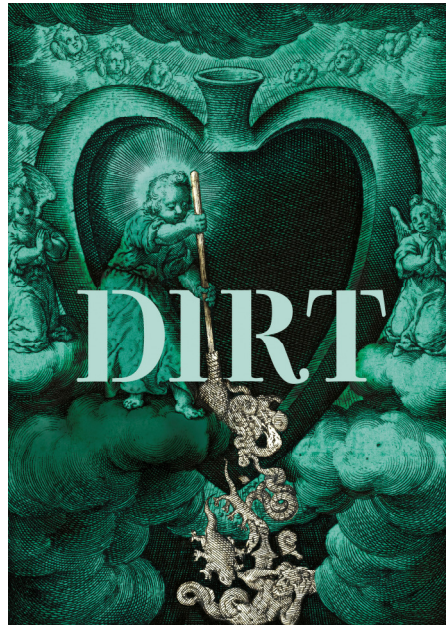
Miasmatists and health reforms

Prof Francesco Carelli
Professor of Family
Medicine

University of Milan
Department of Family
Medicine
Via Ariberto 15
20123 Milan
Italy

Correspondence to:
Francesco Carelli
Email:
francesco.carelli@alice.it

This paper includes some
text from the Wellcome
exhibition literature



Dirt, Wellcome Collection
Credit: Wellcome library, London

Dirt is something we are often reluctant to confront, and might prefer others to deal with. Ubiquitous, yet ill-defined, dirt takes many forms, from the palpable to the symbolic. At the Wellcome Collection's exhibition, "dirt" is a term used to encompass dust, excrement, rubbish, bacteria and soil. It is also used as a metaphor to denote social, cultural or ethnic "outsiders".

Humans, like all living organisms, are efficient generators of dirt, which may partly explain why dirt can provoke visceral fear or disgust. Ultimately, the deterioration of our own bodies is the most profound and unsettling reminder of how everything in the end disintegrates.

Yet, paradoxically, dirt may be seen as a marker of civilisation: the variety and scale of the waste produced by our factories is the uncelebrated evidence of industrial and economic advance.

Dirt can also appear magical: crops grow in soil, strains of antibiotics have been discovered in sewage, and in the book of Genesis Adam was created from clay. In fact the planet's ingenious methods of recycling, from decomposition to photosynthesis turn out to be the very reasons for its survival. Following British anthropologist Mary Douglas's observation that dirt is defined by its context, this exhibition presents different urban locations in order to explore a subject that may represent a significant threat to our health but that is also vital to our existence.

In September 1854 London was hit by a devastating cholera outbreak. Over the course of ten days 500 people died in the vicinity of Broad Street, Soho, and the neighbourhood was soon deserted by those able to leave. The epidemic's intensity drove the officials of St. James's parish to order an investigation into the horrifying sickness, which struck so rapidly that victims often died in a matter of hours.

In a city notorious for its stinking river, gigantic dust heaps and its underclass of scavengers, most Victorian health reformers believed that

disease was caused by bad air, or “miasma”. While the physician John Snow gathered evidence to prove that cholera was in fact spreading through polluted water, the Board of Health sent its miasmatisers to collect data on an exhaustive range of factors, from atmospheric pressure to the ventilation of residents’ homes and the location of ancient plague pits.

Snow’s map charting the course of cholera eventually convinced the parish to remove the Broad Street pump handle, but his meticulous research was largely ignored by the scientific orthodoxy. In the face of prejudice and superstition it would take years for his investigation to be heralded as crucial to our understanding of disease.

When Joseph Lister arrived at Glasgow Royal Infirmary in 1861 he would certainly have noticed the stench. The hospital was a filthy place and rates of infection were so high that patients presenting with broken limbs or compound fractures had a 90 per cent chance of amputation. Those who underwent procedures successfully were at great risk of dying from postoperative “ward fever”.

Lister’s desire to improve the healing environment, combined with his expertise as a microscopist and interest in the work of Louis Pasteur, inspired him to introduce a controversial antiseptic system. In 1867 he carried out his first operation using carbolic acid (already in use as a means of deodorising sewage). The practice had a radical effect on recovery rates and ultimately on the perception of disease transmission, finally putting an end to the theory of miasmatic contagion.

The transformation of Glasgow Royal Infirmary under Lister’s direction illustrates the impact of antiseptic surgery and the significance of sanitation in a city that, through a major economic success story, was also home to the hellish overcrowded tenements which bred poverty and disease.

Between May and October 1911 over five million visitors were drawn to Dresden, to visit the First International Hygiene Exhibition. Its many pavilions combined new technologies and lifelike displays to educate the public about healthcare and human anatomy. Its success led to the founding of the Deutsches Hygiene

Museum, which continued to organise travelling exhibitions across Germany. When the Second International Hygiene Exhibition was staged in Dresden in 1930, the Museum was given its own purpose-built home – an architectural monument to rationality and transparency in modern medical science: they believed in cheerful effects and that air of efficiency gives confidence to the patients. By 1933, however, the Hygiene Museum’s innovative communication methods and ideas about popular health education had been co-opted into the service of the ruling Nazi party and its racist ideologies. Today, the Museum has returned to the spirit of 1911, but reinvented as “Museum of Man” for the 21st century.

In 1911 the organisers asked the famous designer Von Stuck for a poster: it is in Jugend-style and centred on an eye: the idea of an all-seeing eye that watches over and also sees through the human body seemed an appropriate symbol for “hygiene” at a time when microscopes and X-rays were revealing new secrets about the body.

And now, when in most developed countries care for “hygiene” in any aspect of human life (food, houses, work, sex...) is a well established policy, the next challenge is hygiene for the earth and all the world, that is ecology. The battle between “catastrophist” and their opposites is still ongoing, but which are the miasmatisers and which the real hygienists? Let the future reply.