

Ladies & Gentlemen: a brief history of the toilet

Have you ever noticed that when we speak of food or about eating, everyone participates and tells about his or her own experiences? But few people are willing to speak about the most human and natural of consequences. So let's summon up all our courage and talk about it right here!

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Let's pretend that a couple of hundred years ago, you, an inhabitant of a large city like Paris or London, happened to come home late at night. Suddenly, you may have heard someone shouting that sounded more or less like "looooo!" and be immediately drenched by a certain amount of dung and urine of authentic, biologically human origin. Nothing personal, no intentional attack; just a common, popular practice to simply dispose of one's organic wastes. The cry is the contraction of the French expression "gardez l'eau!" (watch out for the water!) used to warn passers-by. Distancing waste from oneself, but bringing it near to others -- especially when these "others" are several hundreds of thousands of people (from 1800 to 1900, London's population increased from 958,000 to 6,500,000, and in the same period, Paris witnessed an increment from 546,000 to 2,700,000 people) constituted a serious problem!

FEW WILL ADMIT IT, but the great urban renewal of European cities of the mid-1800s is not wholly fruit of the enlightened intentions of the sovereigns of the time, but rather of the impelling need not to be overwhelmed by deadly epidemics (cholera, typhoid, ...) and by ugly odors and miasmas caused by the lack of sewer systems, toilet facilities and sanitary control of public water.

The decision by the English Parliament in 1858 to upheave London with Joseph Bazalgette's colossal project to endow the city with an imposing sewer network was spurred on in just eighteen days, under the threat of the "the Great Stink" coming from the Thames which had become an open-air cesspool.

The sewer system in Paris, too, renovated in 1830 by the prefect Charles de Rambuteau, halfway through the 1800s had to undergo radical expansion works within the grandiose urban modernization plan by George Eugène Haussmann, commissioned by Napoleon III.

Engineer Eugène Belgrand, responsible for the actuation of the project, took advantage of the extension works for new roads and boulevards, and built 600 kilometers of new underground channels for sewers, aqueducts and pneumatic tubes.

The construction of these works - which served as a virtuous example for other European cities - yielded an improvement in hygienic conditions and the beginning of the adoption of bathrooms and toilets in modern homes. At least for the lucky ones, but not for everyone if we consider that still today, at least two-thirds of the world's population does not have appropriate sanitation systems and over a billion people daily drink polluted water.

THE HISTORY OF THE TOILET and of personal hygiene was neither fast nor straight forward. The condition from which the western world benefits today is fruit of a very slow, variegated journey that often had to come to terms with the evolution of our species.

It is probable that for our ancestors, the problem of waste began when, having abandoned nomadism, they created resident communities and dedicated themselves to breeding and farming. With community life in the first cities comprised of hundreds - or thousands - of people and animals came - besides the problem of stocking food reserves - also that of waste accumulation. The idea to settle near river beds, adopted by many communities, entailed clear advantages: besides being used for drinking and refreshing oneself, the water would sweep away every type of waste.

THE FIRST TOILET IN HISTORY was born around 1700 B.C. in Crete, in the Palace of Knossos, and is part of the hygienic devices found in the Queen's quarters that also included a very refined bathtub (we will speak of it also on page 93). The Minoans were refined plumbers: in the royal palace, they constructed a drainage system using conical ear-

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thenware pipes. More or less in the same period, also the ancient cities in the Indus Valley, in Mesopotamia, and in Egypt were equipped with bathrooms and latrines with sewer systems that drained waste water into channels and wells on the streets. In the ancient Egyptian city of Akhetaton (today Amarna), on the banks of the Nile, a latrine was found dating back to 1350 B.C., with a seat made of stone, hollowed out in the shape of the lower back side!

Those who did not possess particular structures could follow the indications given by Moses in the Old Testament (Deuteronomy 23:12-13): "Let there be a place outside the tent-circle to which you may go; and have among your arms a spade; and when you have been to that place, let that which comes from you be covered up with earth".

IN IMPERIAL TIMES, the ancient Romans had 4,000 "seats" available in the Eternal City distributed among the 144 public latrines called *foricae*: a large hall, accessed through a vestibule, with long marble seats located along the walls, carved with holes at a certain distance one from the other. Underneath the seats, water flowed continually. They could answer their impelling needs while making amiable conversation, in the company of friends and acquaintances.

The hygienic "fortune" of Rome was called the *Cloaca Maxima*. Its construction works began around 600 B.C. under the reign of Lucius Tarquinius Priscus. Originally, its function was to drain marshlands in the area that today hosts the ruins of the Roman Forum. But as the city expanded, the 800-meter long channel that connected the Forum to the Tiber River became the "providential" collector of the city's sewer system. Other cities that had begun building aqueducts without setting up a sewage disposal system caused great problems (smells and pestilences!) for their inhabitants. Naturally, only the homes of the wealthy could have a direct connection to the aqueduct and the sewer system. The majority of Romans got their water from public fountains (there were more than 1,300 of them!). They collected their personal excrements in vases which they then emptied in the nearest sewer connection; or in terracotta containers handled by the "stercorari", an organization that took care of the emptying and resold the contents as agricultural fertilizer.

WITH THE FALL OF THE ROMAN EMPIRE, also the services that it was able to offer - in our case the abundant flow of running water - slowly disappeared. Hygienic standards greatly suffered and for many years later, the only ones who could enjoy a sufficiently comfortable situation for their bodily needs were the monks and the wealthy lords. In the convents, the organization of all activities based on common schedules imposed the creation of collective services usually connected to dormitories. In castles and in manor houses, the "garderobe" - sometimes single and sometimes multiple - was placed along the external walls and it discharged onto the perimeter moats. For everyone else and for many centuries to come: chamber pots and bad-smelling latrines that had to be periodically emptied out.

LEONARDO DA VINCI MAY WELL BE CONSIDERED A PRECURSOR OF HYGIENE. In order to find a remedy to the deterioration of the urban Renaissance environment (dirt, mice, epidemics) he designed an ideal city that included - in addition to other futuristic proposals - an underground private and public sewer network connected to streams. To Francis I, his protector, he proposed the construction of a series of bathrooms for the castle of Amboise, with running water channeled inside the walls, aerated through ventilation wells connected to the roof. This project, too, like many others proposed by the great inventor, had no follow-up.

Official recognition for the toilet goes to Sir John Harington, one of Queen Elizabeth's godchildren, who, in 1596, in a literary publication called the *Metamorphosis of Ajax*, describes in great detail a device that would allow waste disposal thanks to a flow regulated by valves and to the control of bad smells through providential mechanisms. The innovation was put into place at the Queen's Palace in Richmond. But following the initial enthusiasm for the novelty, the need for abundant water in order to function and the scarce ventilation that gave the instrument a bad smell, the new toilet was practically abandoned and forgotten for almost 200 years.

IN FRANCE, IN THE ROYAL PALACES, the presence of toilets equipped with a commode (a wooden stool or chair with a hole in it and a container underneath) diffused rapidly. At Versailles, at the time of Louis XIV (1638-1715), there were 264 *chaises percées*, of which 208 richly covered in damask and red velvet. The names for this device flocked and multiplied: *chaise d'affaire*, *chaises pertuisées*, *chayères de retrait*, *chaises nécessaires* or simply *selle* (stool).

Initially, the commode constitutes an object to be valorized through the addition of *décors* and precious coverings; then, gradually beginning to become a part of "normal" furnishings, it is cached, dressed up as something different. A popular model in France at the time of the Anglo-Dutch Wars (1672-78) was known as the *Voyage au Pays Bas*: this was the title that appeared on the back cover of large, fake book volumes placed one on top of the other that in reality cached the unmentionable secret. The only alternative title was *Mystères de Paris*. Despite its humorous aspect, it was important that the object be recognizable by guests who may have needed to perform

their bodily functions without upheaving the entire library! And still speaking of innovations, it seems that the first appearance of the terms “Ladies” and “Gentlemen” was during the Grand Ball of Paris in 1739 where, in order to distinguish the bathrooms, two signs were placed on the respective entrance doors marked Garderobes pour le femmes and Garderobes pour les hommes.

AT THE END OF THE 18TH CENTURY, WITH THE ADVENT OF NEW TECHNOLOGIES, THE TOILET, TOO, WITNESSED A REBIRTH. In 1775, Alexander Cummings (1733-1814), a Scottish watchmaker, patents a new toilet system. Underneath the bowl there is a siphon in which, after use, a few centimeters of water remain that isolate it from the sewer. The principle was a good one but it was not perfect because, between one use and the other, gas and bad smells could fill the environment. But the right road was embarked on and after him, others intervened to improve the system. In 1778 Joseph Bramah (1748-1814), a cabinet-maker/inventor, perfects Cummings’ original idea with a crank system that allows to trap the gas; he begins producing it and installs over 6,000 samples. A further variation was introduced by Henry Moule, who in 1860 patents his Earth Closet: a toilet used prevalently in rural areas, that, in order to mitigate odors, emitted ash and earth. Its counter-indication was that the inert material had to then be emptied manually.

WAITING FOR THE WORKS ON THE CITY SEWER SYSTEMS TO FREE THE CITIZENS from the risks of disease and from tremendously bad smells by connecting homes to the public network, waste waters were collected in cesspools which had to be periodically emptied out, and often filtered into the earth’s water strata. A fundamental contribution to the diffusion of the toilet was given by Thomas Crapper. Through continuous testing in his laboratory on Marlborough Street, in London, he perfected the functionality of the flushing toilet - actuated by a small chain - the isolation of odors and a ventilation system connected to the roof to let out the gases. Crapper’s collaboration with the Twyford factory led to the production of ceramic toilet bowls (up till then they were metallic), with a consequent substantial improvement in cleanliness and costs.

Almost three hundred years after it was invented, the toilet was now ready to enter into “mo-dern” homes, greatly changing the arrangement of the living environments and making them more comfortable. The many names and nicknames used to designate the toilet is a sign of the embarrassment that we still feel today when speaking about it. But without this irreplaceable instrument, managing our daily life would be disastrous. With it, our days become ... lighter. Right from when we wake up in the morning. •