Sulabh International Museum of Toilets
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www.sulabhiinternational.org
www.sulabhtoiletmuseum.org

We are open between 10.30 AM and 5.30 PM everyday
Monday to Saturday except National Holidays
"The toilet is a part of the history of human hygiene and constitutes a critical chapter in the history of human civilisation."

– Dr. Bindeshwar Pathak
Museums, as repositories for the preservation and exhibition of the objects of historical, scientific and cultural interest are found all over the world. But rare are the museums that display the evolution of toilets and their various designs.

Dr. Bindeshwar Pathak, Founder of Sulabh International Social Service Organisation, a pioneering Non Governmental Organisation (NGO) in the field of sanitation in India, envisioned the need for setting up a museum of toilets in the sprawling campus of his central office at Mahavir Enclave, on Palam Dabri Road, in New Delhi, India. The idea engaged his mind for long, eventually leading him to make a hectic worldwide search for the minutest details of the evolution of toilets, as also of various toilet designs used in different countries at different points of time. More than 100 Embassies and High Commissions of different countries based in New Delhi were contacted. Letters were sent out to each of them with a request to furnish information on the subject and also to provide details/photographs of various toilet designs used in their respective countries. More than 60 Embassies and High Commissions responded to the request and sent valuable information. Some of the important letters have found place in this booklet. Sulabh received some encouraging letters from various countries including USA, and UK. The Austrian Embassy in New Delhi, played an extremely significant role in helping materialise the intention to setup the museum and sent some valuable information. Several other embassies contributed pictures as well as relevant literature.

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Taking personal interest in his dream project, Dr. Pathak searched vigorously for literature and photographs of historical significance. In each of his visits to several countries around the globe, he made it a point to collect information, bit by bit, from anyone and any institution that had in its possession the material envisaged for setting up of the Museum. The intense search resulted in accumulation of a significant reservoir of information on the subject. All this information, (books, pamphlets, photographs) have now been imaginatively arranged and displayed in the Sulabh International Museum of Toilets. It took over three years to fulfil the ambition to establish the Museum.

Thousands of important personalities from India and abroad have visited the museum and every day a large number of visitors come to see it. These include parliamentarians, political leaders, bureaucrats, academics, social workers, judges and the advocates of the Supreme Court, teachers, students as well as family members of scavengers (India’s sanitary workers). Many of them spoke highly of the museum and felt that it had the prospect of becoming an institution of international standing.
OBJECTIVES

The Museum was established with the following objectives:

(i) to educate students about the historical trends in the development of toilets;
(ii) to provide information to researchers about the design, materials, and technologies adopted in the past and those in use in the contemporary world;
(iii) to help policy makers to understand the efforts made by their predecessors in this field throughout the world;
(iv) to help the manufacturers of toilet equipment and accessories in improving their products by functioning as a technological storehouse; and
(v) to help sanitation experts learn from the past and solve problems in the sanitation sector.

THE MUSEUM

The Museum has a rare collection of facts, pictures and objects detailing the historic evolution of toilets from 2500 BC to date. It provides a chronological account of developments relating to technology, toilet related social customs, toilet etiquettes, prevailing sanitary conditions and legislative efforts of the times. It has an extensive display of privies, chamber pots, toilet furniture, bidets and water closets in use from 1145 AD to the modern times. It also has a rare collection of beautiful poems related to toilet or its usage or call of nature; some of them have been reproduced in this booklet.

The pictures displayed at the Museum make one aware of how the world looked like when societies did not have the benefit of water closets (W. C.) and the changes that have been brought about by its invention. Ornately carved and painted urinals and commodes attract attention and are a source of amusement to many. The pictures of medieval commodes are noteworthy. There is also a picture of a medieval mobile commode in the shape of a treasure chest, which the English used while camping out for a hunt. One could imagine the shock registered by some unsuspecting highway robbers, if they made away with such "treasure chests", thinking it to be containing something absolutely unprecedented inside. The Museum also displays how the Roman emperors used to have toilet pots made of gold and silver. The Museum has a rare record of the flush pot devised in 1596 by Sir John Harington, a courtier during the reign of Queen Elizabeth I. The Museum displays sewerage system of Mohenjo-Daro and Harappan civilisation and maintains a detailed record of how modern toilet pans have emerged over a period of time.

The Museum has a stock of interesting anecdotes associated with the development of toilets. Tracing the history of toilets from Indus Valley Civilisation in Lothal, 62 kms from the city of Ahmedabad, India where a highly developed drainage system existed, the Museum documents facts relating to some countries in Europe where most of the early technological developments in the evolution of toilets took place. The national flags of different countries, from where the pictures of toilets have been collected are also displayed.

The Museum receives a daily stream of visitors from India and abroad. Most of them have found the project inspiring and unique. We are busy collecting more information from all over the world. The aim is to develop the Museum to an international standard.
HISTORICAL EVOLUTION

There is a story that the Indian Emperor Akbar the Great asked his “nine gems” (chosen courtiers) as to what was the happiest moment in one’s life. Different courtiers answered differently; some said it was enjoying good food, merrymaking, women etc. But his favourite courtier Birbal said that the joy after relieving oneself in the morning was the happiest thing in life. The Emperor was very offended and threatened to punish Birbal for showing disrespect to the court. Birbal, clever as he was, requested for time to prove his point.

One day, Birbal arranged a sumptuous party on ferries floating on the river. The ferry party had everything - good food, dance and music. After a whole night’s feast and revelry as the dawn neared, the Emperor felt bowel pressure and asked Birbal to take the boat ashore. But Birbal said, “what was the necessity for His Highness to go to the shore when everything was available on the boat?” When the pressure became unbearable the boat was taken ashore. Relieved, Akbar said “Birbal, you are right; a good morning bowel movement is the happiest moment in one’s life.”

The French King Louis the XIV (1638-1715), actually had a commode built under his throne, which prompted his court jester to remark that he found it a bit strange that while the king preferred to eat in privacy, he chose to ease himself in public. The replica of the throne of Louis the XIV is now on display at the Sulabh International Museum of Toilets, New Delhi.

The existence of toilet facilities has a long history, possibly older than that of the Roman Empire. Excavations at Mohenjo-Daro confirm the existence of common baths and private toilets in households. During second century BC, when Roman ascendancy was at its zenith, public baths acquired a cult status and received undivided attention. Under the Romans, public baths acted as meeting places for the people, and reached the highest point of their development. Later, during the Middle Ages, however, baths were little known, although some public baths did exist in Spain during that period. But it was only after an outbreak of cholera in London, in 1832, that the British authorities began a campaign for building
public baths and “wash houses”. In India, public latrines were constructed only after 1940, though sparsely, in different towns, but soon became unusable due to lack of good maintenance.

In 1851, the concept of establishing self-supporting public lavatories in London was mooted and committees consisting of eminent personalities were set up. The committees decided to set up “Public Waiting Rooms” (a euphemism for public conveniences) separately for men and women, on ‘pay and use’ basis. The ‘waiting rooms’ were complete with attendants and even the police were instructed to ask people to use the conveniences. To ensure wider publicity, advertisements were inserted in The Times and pamphlets were distributed.

The “Public Waiting Rooms” opened in February 1852, however, turned out to be a failure as during its inaugural month only 82 people (58 men and 24 women) used the “waiting rooms”. In the following months, even though the fee for using the waiting rooms was reduced, the public response continued to be so poor that the expenditure incurred on the running of these conveniences continued to be three times the fee received and, consequently, the ‘Waiting rooms’ had to be closed down. Consequent to the failure of the scheme, a system of underground conveniences was then set up, upon the recommendations of Mr William Haywood, the City Engineer.

The 19th century can be truly called the ‘Century of the Toilet’ when patents were registered to help improve the quality of WC and attractive designs came into the market. Unfortunately, though WC manufacturing became industrialised and the designs were streamlined to make its working fool-proof, the touch of class in the design of toilets was missing. Lucinda Lambton in her book ‘Temples of Conveniences & Chambers of Delight’ aptly summarises the development in the last 100 years. She states: “Since the 1880s, WCs have neither changed their working nor their basic shape; the water closet was already being advertised in all the catalogues of the 1890s, and modernisation has simply meant streamlining of what was once a rich, delightful and enjoyable form”.

Tracing the history of the evolution of toilets, it seems a bit ironical that India, where even today most of the people defecate in the open (often near railway tracks), was one of the pioneers in this field. The famed Indus Valley Civilisation at Mohenjo-daro, had a highly developed drainage system where waste water from bathrooms as well as toilets in each house flowed into the main sewer through a drain pipe passing under each house. In Mesopotamia, water being aplenty, flush-type toilets were developed as early as 1700 B. C. and by 700 BC flush-type stools had made their appearance.
The importance of toilets in war time was realised by the Persians when they met their "Waterloo" at the hands of the Greeks, during the 3rd Persian War in 480 BC. The invading Persian army suffered from plague caused by their own excreta, as the Persians, who lived in an arid area followed the practice of easing out themselves in open.

During the Peloponnesian War (431 BC), when Pericles (c.495-429 BC) called upon all the people to assemble in Athens, in the absence of adequate sanitational facilities, an epidemic spread, killing thousands. This, incidentally, is the oldest record of a full-blown epidemic.

The Romans, learning the lessons from the Persian invasion of Greece, gave utmost importance to sanitation and in 312 BC, a 16.5 km long Appia Waterway was completed. As a result, water closets became popular as far as Egypt and Southern France.

In the Antoninus Public Bath (200 BC), there were 1600 holes for defecation and in the public toilets in Rome, toilet seats with a hole in the middle were arranged in a semi-circular shape and water flowed underneath. They were known as river-top type toilets. In the Old Testament, Moses admonishes his tribe from defecating in the open: “You should search for some other place and bury your excretion,” he commands. The old Testament further declares that, “you fellows still do not realise, whatever you eat, goes into the toilet through your stomach.”

In the "Fourth Book of Kings", it is recorded that the believers of Jehovah destroyed a Pagan shrine and constructed a toilet in its place.

Latorinas or private toilets having a water closet were widely used in Rome around 196 BC and some of these were decorated with mosaic and marble.

In 33 BC there were 170 public baths in Europe alone, and later, they became so popular that their number swelled to as many as 1000. It is believed that people used a sponge bar to clean themselves in place of paper.

The Romans' love for toilets was evident in the fact that Emperor Heliogabas was assassinated inside one, in 222 AD (as was the English King, James I).

By 960 AD, the first recorded sewer line was constructed in England. In 1088 AD, toilets in the Locheater Fort were constructed in the castle wall and human waste fell on the outer side of the wall through a hole. The first sewers were constructed in Paris, around 1200 AD by Phillipe August.

The Water Closet (WC), that essential convenience of modern living, was probably invented about 1460 AD, but the first person to do anything really practical with the idea seems to have been Sir John Harington, an Elizabethan courtier who was banished from the court by his
outraged monarch for translating and circulating among the ladies, a racy story by the Italian poet Ariosto. He retired to his native home where, besides translating some more Ariosto, he worked on a design for a flush WC and duly installed the contrivance in his own home. Having won his way back into Elizabeth’s good books, Harington fitted a royal flush WC into the Queen’s Palace at Richmond, Surrey. Unfortunately, he wrote a book about his device, called “The Metamorphosis of Ajax” - the title being a pun on the old name ‘a jakes’ for a privy. The earthy humour of the book, which appeared in 1596, incensed Queen Elizabeth to banish Harington from the court once more.

An improved model of Harington’s WC, incorporating a stink trap, was patented by a London watchmaker, Alexander Cummings, in 1775. Further improvements were made by a London cabinet-maker and inventor, Joseph Bramah, in 1778. These early WCs were connected straight to cesspits and, even after the invention of stink traps, the smell from them must have been really awful. Not until the invention of a modern sewer system in Hamburg in the 1840s, with arrangements for flushing the pipes regularly with river water, did the general health of people improve. The finest among the nineteenth century sanitary engineers was Sir Joseph Bazalgette, who, in the 1850s, equipped London with an efficient system of sewers for which he invented automatic flood doors and new pipe sections allowing speedier flow of effluents. The height of glory for the toilets was reached when Louis XIV gave audience while using the toilet!

Different things were used for personal cleaning after defecation, such as linen, marino, thread waste, leaves, small stones, pages from books etc. The toilet of Queen Victoria was decorated with gold. The bidet made its first appearance in 1710, at Versailles, France.

In the 19th century, patents after patents were registered to help improve the quality of the performing parts in the water closet. Beautiful WCs
with dolphin, lion and floral designs were developed and manufactured on a mass scale, the pictures of which can be seen at the Sulabh Museum.

Septic tanks made their appearance in 1904, in Paris. Toilets today have come a long way since the "hole in the ground" days.

As late as 1966, when many inventors were still taking their thoughts to the WC, a Chicago hairdresser took out a patent for a novel toilet seat which embodied a buttock-stimulator for relieving constipation and for general massage. An electric motor set two separate halves of the seat moving backwards and forwards, alternately. Both halves could also vibrate together at high speed.

To sum up, a 19th century quotation by Lucinda Lambton will not be out of place. "The lavatory is an intimate friend to us all, and we should honour it as such. It is undeniable that a glorious throne with a welcoming wooden seat makes us laugh with pleasure, why then do we minimise its importance, making it a mere receptacle, a necessary evil? But there is a ray of hope... (with) architect's realising the 'sheer solid joy' that a well-designed lavatory and a capacious bath can give (aren't they) once again planning temples in which we can luxuriate." Emperor Akbar, would have concurred.

The chamber pot, from its humble beginning, offered scope for improvement. In Victorian times it became a veritable object d'art and, even in the 1900s, appealed to inventors as a vessel that might be elaborated upon. In 1929, for instance, an American electrician, Elbert Stallworth, patented the first electric chamber pot for use on chilly nights. In a rubber and asbestos seat which ran around the upper edge, were embedded metal bands enclosing resistance wires between mica strips to keep the seat warm.
Highlights in the Evolution of Toilet System
2500 BC to 1980 AD

BC 2500
In Mohenjo-daro, there existed a highly developed drainage system where waste water from each house flowed into the main sewer.

BC 2000
In the tomb of the King of Third Ur dynasty, to the South-East of Temenos, a toilet with a long drain was discovered.

BC 1000
In the Bahrain Island in the Persian Gulf, the flush type toilet was discovered.

BC 480
As found in Agra Fort, in Persia too, a well was dug and human waste was mixed with soil.

BC 200
In the Atoninus Bath, there were 1600 holes for defecation. Water flowed underneath. In the “Fourth Book of Kings” it is recorded that the believers of Jehovah destroyed the shrine of the Pagan and constructed a toilet.

AD 69
Vespasianus, the Roman Emperor for the first time levied tax on toilets.

1088 AD
Human waste was collected on the roads (London and Paris) and then taken out of the city.

TOILET ETIQUETTES
Manusmriti & Vishnupuran - Ancient Hindu scriptures

Code for Married People

- The head was to be covered with a cloth. In the absence of cloth, the sacred thread was to be brought over the head and was to be hung on the left ear.
- Then while observing silence and facing north in the day and south in the right one could defecate.
- While defecating one was not to touch water.
- After defecation the water pot was to be held in right and left hand was to be used for cleaning.

Before going for defecation one was to chant the following Mantra from

“Gachhantu Rishi Deva: Pishacha nyccha guhiyaka: Pitbhutaganne surve, Karishye malmochnam”

Before going for defecation it was prescribed that the sacred thread should be rolled to a smaller size and put on the right ear.
1214 AD  Construction of public toilets for the first time manned by scavengers in Europe.
1310-1400 AD  Human waste was thrown at passers by at the time of carnival, as a serenade ceremony.
1513 AD  Edict in Paris to make a urinal in houses compulsory, which could not be implemented.
1544 AD  Poet Woosiroque - de - Bolyu became famous for his poems on human waste
1596 AD  John Harington invents W. C.
1600 AD  Kings give audience while using toilet (Louis XIV).
1641 AD  Pigs let loose in cities to eat human excreta.
1666 AD  Ladies wear overshoes as protection from human waste on the roads.
1668 AD  Edict issued by Police Commissioner, Paris, making construction of toilets in all houses mandatory.
1700 AD  Urinal in all houses made compulsory again in Paris.
1728 AD  Architect J. F. Brondel argues that attached toilet is ideal.
1739 AD  First separate toilet for men and women (Paris).
1771 AD  Paid toilets constructed for the first time in Europe.
1775 AD  Patenting of improved W.Cs by Alexander Cummings, Joseph Blumer, Jameo Grease, Thomas Prosser and Thomas Launtry.

MANUSMRITI & VISHNUPURAN - Ancient Hindu Scriptures
The following Shloka gives the philosophy of protecting environment by adoption of elaborate defecation practices.

Dashastan prijay nutram karya
Jalashay shathastan
Parisharthe teertham nadyam chaturgunam!

Dharashauch na kubirt shauchshudh
Mahhipsta! chulakairaiv kartabya
Hashtshudhi vidhanta!

Urination ought to be done at least at a distance of 10 hands from the source of water.
Defecation to be done at a distance of 100 hands from the source of water.
At least 40 hands distance is to be maintained while urinating near a river or a temple and defecation atleast at a distance of 400 hands.
Urination and defecation ought not to be done in running water or river. Water should be taken in hand and wash to be done away from the river.
1806 AD  Further improvements by architects Jillow, David Lease, John Athlay, Thomas Bin and William Law.

1824 AD  Construction of the first Public Toilet in Paris.

1842 AD  Public Sanitation Law presented before British Parliament by Edwin Chadwick.

1848 AD  New Public Sanitation Law enacted in England. Ash Pit or W.C. in each house made obligatory.

1857 AD  Daniel Bostel and Co (Britain) successfully manufactured the 'Wash out closet' on commercial basis.

1859 AD  Toilet of Queen Victoria is decorated with gold.

TOILET ETIQUETTES
Manusmriti & Vishnupuran - Ancient Hindu Scriptures

Code for Bachelors, Ascetics and Students

For those who observe celibacy, or have renounced the world, should observe the rules differently.
- Those observing celibacy should observe the rules twice more intensely than the married ones.
- Those who are in 'Vanaprastha' should observe rules three times more intensely.
- The saints should observe the rules 4 times more intensely than the married ones.
- All the above rules are for urination and defecation in the day time. In the night the frequency of wash etc. is reduced by half. If one is travelling the rules are further reduced by half. If one is sick the rules need to be observed as per capability.
1869 AD Sewage water used as manure on experimental basis.

1870 AD J. R. Man developed the Siphon Type closet.

SS Helliier invented "Optsion" - an improvement on Blumer model.

1876 AD Beautifying the W. C. Lion, dolphin and flower designs developed.

1883 AD First Ceramic toilet by Thomas Twyford for Queen Victoria.

1889 AD Sewage Treatment conducted for the first time in the world.

1900 AD George Jennings developed "closet of the century." Advantage of both valve and wash down type.

1904 AD Septic tank manufactured (Paris).

1936 AD A new water flush system called 'spout' (tromp) developed.

1937 AD In the Paris Expo, Sanitation Hall was set up.

1959 AD All surface toilets abandoned in Paris.

1980 AD Installation of Auto – Control Public Toilet.

1993 AD INCINOLET: Electric toilet introduced in USA, which quickly burns human excreta.
History of Toilets

Unlike all body functions like dance, drama and songs, defecation is considered as very lowly. As a result very few scholars have documented precisely the toilet habits of our predecessors. The Nobel Prize winner for Medicine (1913) Charles Richet, attributes this silence to the disgust that arises from noxiousness and lack of usefulness of human waste. Others point out that as sex organs are the same or nearer to the organs of defecation and urination, those who dared to write on toilet habits were dubbed either as erotic or vulgar and, thus, despised in academic and social circles. It was true, for example, of Urdu poets like Chirkin in India, or some English poets in Britain or French poets in France. However, as the need to defecate is irrepressible, so were some writers who despite social as well as academic stigma, wrote on the subject and gave us at least an idea in regard to toilet habits of human beings. Based on this rudimentary information, one can say that the development in civilisation and sanitation has been parallel. The more developed was the society, the more sanitised it became and vice versa.

The toilet is a part of the history of human hygiene and constitutes a critical chapter in the history of human civilisation. It cannot be relegated to an unimportant position in history. The toilet is a critical link between good and bad environment.

In our country i.e. India, how can any one ignore the subject of the toilet when the society is faced with human excretions of the order of 900 million litres of urine and 135 million kilograms of faecal matter per day with totally inadequate system of its collection and disposal? The society, thus, is under a constant threat of health hazards and epidemics. As many as 700 out of 1000 million people do open defecation. Sewerage facilities are available to no more than 30 per cent of the population in urban areas and only 3 per cent of the rural population has access to pour-flush latrines!

Facing this challenge, the subject of the toilet appears to be as important as

The paper presented by Dr. Bindeshwar Pathak, Ph.D., D.Litt., Founder, Sulabh Sanitation and Social Reform Movement at International Symposium on Public Toilets held in Hong Kong on May 25-27, 1995
if not more, than other social challenges like literacy, poverty, education and employment. Rather, the subject of the toilet is more important because the lack of excremental hygiene is a national health hazard while in case of the other problems the implications are relatively closer to only those who suffer from unemployment, illiteracy and poverty. Viewed from this angle, a study of the history of the toilet is an important subject matter.

As long as man did not have an established abode, he did not have a toilet. He excreted wherever he felt like doing so. When he came to have a fixed house, he moved the toilet to the courtyard and then within his home. Once this was done, it became a challenge to deal with the smell, and soon the need was felt to have a toilet which could contain human wastes till it could be disposed of at some distance from the house and, thus, help maintain cleanliness. Man tried various ways to do so e.g. chamber pots, which were cleaned manually by the servants or slaves, or toilets protruding out of the top floor of the houses or castles for disposal of wastes in the river or ditch below, or common toilets with holes on the top and flowing river or stream underneath or just entering the river or stream and excreting therein. While the rich used luxurious toilet chairs or cross stools, the poor defecated on the roads, in the jungle or straight into the river.

It was only in the 16th century that a technological breakthrough came about which helped human beings to have clean toilets in their houses. This breakthrough, however, did not come about easily and the human race had to live in insanitary conditions for thousands of years. The history and artefacts chronicling the development of the toilet can now be visited easily at the Sulabh International Museum of Toilets in Delhi. The museum traces the history of toilets for the last 4500 years.

### Historical Evolution

The perusal of its literature brings home the fact that we have only fragmentary information on the subject of the toilet, as a private secluded place to help the body relieve its waste. Sitting type toilets in human history appeared quite early. In the remains of Harappan civilisation in India, at a place called Lothal (62 Kilometers from the city of Ahmedabad in Western India) and around the year 2500 BC, the people had water borne toilets in each house which were linked with drains covered with burnt clay bricks. To facilitate operation and maintenance, it had man-hole covers, chambers etc. It was the finest form of sanitary engineering. With the decline of the Indus Valley Civilisation, however, the science of sanitary engineering disappeared from India. From then on, the toilets in India remained primitive and open defecation became rampant.

Archaeological excavations also confirm the existence of sitting type toilets in Egypt (2100 BC). Though we have been able to mechanise the working of these toilets, the form and basic format of the toilet system remain the same. In Rome, public bath-cum-toilets were also well developed. There were holes in the floor beneath which was flowing water. When the Romans travelled, they constructed toilets for their use. There were key-hole type stools so that these could be portably used for defecation as well as urination. Excavations in Sri Lanka and Thailand, too, have brought out contraptions in which urine was separated and allowed to flow while the other portion was used at the same time for defecation.
Historical evidence exists that Greeks relieved themselves outside of their houses. There was no shyness in use of the toilet. It was common to see at dinner parties in Rome, slaves bringing in urine pots made of silver to be used by the members of the royalty who continued to see the play, the play being stayed at the same time. According to the little information available about the history of toilets in India, the practice of open defecation was quite primitive. The practice of covering excreta with earth continued till the Mughal era, where in the forts of Delhi and Agra one can still see remnants of such devices to dispose off human waste.

It was also popular in those days to emphasise the medicinal values of human waste. Urine was supposed to have many therapeutic merits. Some quacks even claimed that by the study of urine they could confidently say whether a young girl was virgin or not. Hiroshi Umino reports that a Pharaoh got his eye cured by the use of the urine of a woman, whom he later married. It was also widely believed that the turd of a donkey mixed with nightsoil removes black pustules or the urine of a eunuch can help make women fertile. For oral care it was advised to relieve oneself on one’s feet. In the Indian scriptures there are stories about the strength of wrestlers. If a wrestler defecates too much, he is relatively weak because he cannot digest all what he eats. Similarly, a perfect saint has no need to defecate, for he eats as much as he can digest or he is able to digest all that he eats. While not to defecate was considered sainthood in some societies, in others not to defecate was considered manly. Blown Bettelheim states that men of Chaga tribe blocked their anus during the ceremony of attaining of manhood and pretended as if they did not defecate at all. This was also one way of establishing superiority over women. The ancient Greeks, it is reported, had similar beliefs. Swallowing something and not taking them out was considered as source of power and authority.

The period between 500 to 1500 AD was called the Dark Ages also from the point of view of human hygiene. It was an era of cesspools and human excreta all around. Rich man’s houses and forts in India had protrusions in which defecation was done and the excrements fell into the open ground or the river below. The forts of Jaisalmer in India and big houses on the banks of rivers bear testimony to this fact. In Europe it was an era of chamber pots, cesspools and cross stools. So were the toilets, protruding out of the castles, from which the excrements fell into the river.
It was also an era of "liberty to pee". French poet Claude le Petit described Paris as 'Ridiculous Paris' in the following words:

"My shoes, my stockings, my overcoat
My collar, my glove, my hat
Have all been soiled by the same substance
and unless I say 'it is me',
I would mistake myself rubbish"

There was a lot of jest and humour related to toilet habits and toilet appurtenances. Ballets were performed with baskets of nightsoil in the form of a hood, on the head, or a tin plate commode, moving around with toilet sounds. The clothes were spotted with accessories from the toilet. The actors were etronice (night soil) Sultan, Prime of Foirince (i.e. diarrhoea) etc. There are stories given by Guerand which depict the mood of Europe at that time. A lady of noble birth requested a young man to hold her hand. The young man suddenly felt the urge to urinate. Forgetting that he was holding the hand of a lady of noble birth, he relieved himself. At the end he says "Excuse me, Madam, there was a lot of urine in my body and was causing great inconvenience," Similarly the Maid of Honour, Anne of Austria, owing to excessive laughter, urinated in the bed of the queen. Joseph Pujol (hero extraordinary of French scatology) in his shows demonstrated many types of farts i.e. of young girl, mother-in-law and bride. He could even extinguish a candle 30 centimetres away through his farting.

**Poetry on Nightsoil:**

Irrepressible poets in many countries, despite social stigma attached to their professional work, were writing poetry on defecation habits, farting and heavenly qualities of night soil. Chirkin in India, Eustrog de Beaulieu, Gilles Corrozal and Piron in France and Swift in England were all enjoying themselves at the technological impasse which human beings were faced with, in disposing off what they excreted.

Gilles Corrozal for example described the toilet in the following vein —

"Recess of great comfort
Whether it is situated
in the fields or in the city
Recess in which no one dare enter
Except for cleaning his stomach
Recess of great dignity"

Or take the erotic French Poet Eustrog de Beaulieu whose translated verse reads as follows:

"When the cherries become ripe
Many black soils of strange shapes
will breed for many days and nights
then will mature and become products of various colours and breaths"
French poet Piron called the faeces as 'Royal Nightsoil'. Though ostracised by the academic community, he wrote as follows:

"What am I seeing Oh God!
It is night soil,
What a wonderful substance it is
It is excreted by
the greatest of all Kings
Its odour speaks of majesty"  

An English poet called nightsoil an object of contemplation for the sage. According to him, midwives predicted the future of the child from examining the first excrement. Before independence, in the province of Punjab in India, grandmothers ate the first excrement of the male child, if he was born after a long period of marriage or after a number of female births in the family.

The Urdu poet Chirkin in India in vengeance of his verses being stolen by his rivals, wrote on defecation and farting. Look at the following English version translated from Urdu -

"The asset which I will earn
now will all be invested in Toilet.
This time when I visit your home,
I will never "pee" there."  

Public Habits and Attitudes

In the absence of proper toilet facilities, people perforce had to defecate and urinate wherever they could. Defecating on the road, in open spaces, or just easing out themselves by the river was very common.

While the authorities were educating people to have private places for defecating, and getting it cleaned, in actual practice there was total disorder. Squalor and filth abounded in cities. The social reformers advised people where to defecate, how to defecate in privacy
and to control their urges when in company. Children were taught not to touch human waste. At the same time, there was no hesitation in letting pigs loose to eat human excreta.

A number of enactments, however, could not prevent people from defecating in the open. A delegation led by a master weaver protested in front of the French Municipal Building and said, “our fathers have defecated at the place where you prevent us to do. We have defecated here and now our children will defecate here”.

The rich used wool or hemp for cleaning while the poor used grass, stone, sand or water depending upon the country and weather conditions or social customs. Use of newspaper was also common. In Russia, to the utter dislike of all, the subordinates even stamped the toilet paper with imperial arms for the use of the Czar. But it was termed as sacrilege. The final solution to the problem of ablation was found when, in 1857, Joseph Cayetty invented the toilet paper in USA. This invention enabled human beings to have a tissue paper, which is convenient to use, is absorbent as well as compact and convenient while defecating.

In India it is very common to use water for ablation. However, the hand used varies in various parts of India. While in South India, people use the right hand for eating food, it is considered unclean to use the same hand for ablation with water. So the left hand is used for ablation. In most parts of North India, however, no such sharp distinction exists.

Household hygiene habits of ordinary people leave much to be desired. The dry latrines using buckets are cleaned by menials. These workers have come to be known as "Bucket Brigades".

According to Hiroshi Umino, European culture blossomed after contact with the Crusaders from the East. Washing hands, for example, before meals became popular. The social reformers admonished the people by saying “suck your fingers, but, do not wipe them on the wall”. During colonial times in India, the British called big cities as ‘a vast mass privy’ due to defecation by people at all times and at all places. There were also no separate toilets for men and women, till a restaurant in Paris put up ‘Men Toilet’ and ‘Women Toilet’ at a dance party in 1739 AD.

It is also around this time that the urinal pot was introduced to enable men to relieve themselves. The facilities for women were poor and they were taught virtues of self control. Despite technological breakthroughs a lot needed to be done to educate people to use the new technology appropriately, to ensure that the toilet drainage system was not misused by disposal of other household wastes. However, at city level the disposal of human waste still remained a problem.

Public Toilets and People

In each society, from time to time, the government felt the need to provide public toilet facilities to those who could not afford to have individual toilets. The public toilets have a long history in a number of countries, most of which were constructed and managed by municipalities. But there was an all round disgust with their poor maintenance, vandalism and lack of basic facilities. The Mughal King Jehangir built a public toilet at Alwar, 120 kms away from Delhi, for the use of 100 families. Not much documentary evidence exists on the quality of its maintenance but
one can well visualise that with a rudimentary technology and with the government to manage the operation and maintenance functions, it must have been in a very unsatisfactory condition. As hygienic conditions in public toilets were bad, people preferred to do open defecation. This was true in most of the countries. It was in 1872 that the municipalities in France asked private companies to manage public toilets on a lease period of 20 years. The private companies were also offering heavy amounts to the government as they felt confident to recover the same through user charges. Ground floor owners were also being requested to construct latrines for use of the passersby. Previously known as Palais Royal Hotel in Paris, the owners started charging a monthly fee from diners. Incidentally condoms were also sold as part of the facilities.

In India, when Sulabh International was founded in 1970 in a small village near Patna, people ridiculed the idea when it was proposed to introduce the pay-and-use toilets. But the approach has succeeded and today 10 million people use Sulabh facilities every day. Most of the public toilets are being given to Sulabh to construct and maintain on a 30 years lease period at no charge to the State. By the beginning of the century, most of the public toilets were built underground in Europe, but in India these are still overground. Much more attention is being given to construct these toilets on pay and use basis in slum areas where men pay half a rupee per use, with the females and children availing of these facilities free. The facilities available include toilet, bathing or washing of clothes and change of clothes. Primary health care centres at most of these places have also been set up. However, a lot of effort is required to get people’s participation for the efficient operation and maintenance of public toilets. This remains a big challenge to be met by NGOs. Based on the experience of the last 25 years, Sulabh is also convinced that only cooperation between Government and NGOs can make the sanitation programme a success. Neither the NGOs nor the government can create an impact if they work in isolation.

Law and Citizens

In order to improve sanitary conditions, Governments in various countries have also resorted to legal measures. Dirt by definition is considered as disorder, because it disrupts the order of maintaining a clean environment.
In 1519, the provincial government of Normandy in France made provision of toilets compulsory in each house. The French government also passed a parliamentary decree to make cesspools in each house compulsory. Again, a similar attempt was made in 1539. In Bordeaux in France, the government made construction of cesspools compulsory. It was tried again in 1668, when the Lieutenant of Police made construction of toilets compulsory. In England the first sanitation law was passed in 1848. In India the first sanitation bill was introduced in 1878. It tried to make construction of toilets compulsory even in the huts of Calcutta - the capital of India at that time. The Bill proposed construction of public toilets even at the cost of neighbouring houses. The Government of India enacted another Sanitation Act in 1993. Under this Act construction of dry latrine and its manual cleaning was made an offence. Despite these enactments open defecation is rampant, proving that unless adequate social awareness is created in a developing country where the instruments of state are weak and the family income is low, it is a hard task to make any significant progress in this area.

Toilet Technologies

The eighteenth century was a century of toilets. Despite invention of water closet by John Harington in 1596 costing only 6 shillings and 8 pence, this was not adopted on a large scale for almost 179 years. The delay in actual use of an invention is common in human history which Toffler calls “Cultural Gap”. It was true of the railway train, ball point pen and innumerable other inventions. During this period, people used earth closets. In these toilets, instead of water, earth was used. So the problem of cleaning remained. The world also saw the development of Pan closets - which like cigarette ash trays threw the material at the bottom. This, too, required manual cleaning. At the same time chamber pots, cross stools and open defecation continued. Compared to this, Harington’s toilet under the name Angrez was being used in France, though not introduced on a wide scale in England. In 1738, JF Bridel introduced the valve type flush toilet. Alexander Cummings further improved the technology and gave us a better device in 1775. In Cummings’ design, water was perennially there in the toilet and so suppressed odours. Still the working of the valve and fool-proof inlet of water needed further improvements. In 1777, Thomas Procter provided the required improvement. Then John Blummer in 1778, substituted the slide valve with crank valve. It seemed then that the technology of pour flush had now been perfected. But it was not to be so as the world was yet to witness further technological developments. In 1870, SS Hellier invented the flush type toilet, called ‘optims’ - an improvement over Blummer’s design.

From 1830 onwards, however, the emphasis has been more on aesthetics to make cisterns and bowls decorative. The bowls were so colourful indeed that some even suggested to use these as soup bowls! It was also in 1830 that the toilet curtains made their
appearance. The trend was called the age of 'Belleepoque' in France and Edwardian pulence in England. In 1890 we had the first cantilever type of toilet. Since then the world has not witnessed any significant technical change except some changes in the shape of toilets and reduction in the quantity of water per use.

It was around 1900, that the institution of the bathroom came in vogue in Europe. In India the institution of 'Gusikhana' (bathroom) was established by the Mughal kings. Oppressed by the heat and dust, the kings constructed luxurious bathing and massage facilities. But this was only for the rich. The ordinary citizens, however, continued to live in insanitary conditions.

Unlike in the past when latrines were tucked away in attics to keep them away from the nose and eye of the family and the society, the twentieth century in contrast has given a pride of place to the toilet in the home. These are now more opulent, more spacious than anytime in the past. While the provision of toilet in the house solved the household problem of cleanliness, the challenge remained of how to dispose of human waste at city level. This was, however, solved when the sewerage system was introduced. Haussmann in 1858, described the sewerage system beautifully. He said that "the underground galleries which are the organs of the big city will work in the same way as the organs of the body, without being revealed. The pure and fresh water, heat and light will circulate like the various fluids whose movement and maintenance are necessary to ensure life. The secretions will not mysteriously take place there and maintain public health without disturbing the order of the city and spoiling its outer beauty." 12

Around the same time the sewerage system was introduced at Calcutta - the capital of colonial India. However, its extension in the country was and remains slow as it is capital intensive and beyond the resource capacity of the economy even today.

In 1970, realising that sewerage facilities will remain out of the reach of the society at large, Sulabh International introduced the pioneer technology of twin-pit pourflush latrine and human excreta based Biogas plants. It has constructed in the last 25 years over 650,000* toilets, 2500** toilet-cum-bath complexes and 62*** human excreta based biogas plants and is also maintaining them. We believe this gives an appropriate solution to the disposal and recycling of human waste into fertilisers, electricity and working gas.

Summing up

As sewerage based toilet remains and will remain out of the reach of the majority of the population in India, the challenge is to propagate and ensure installation of toilets which are affordable, upgradable and easy to maintain. The Sulabh experiment is an outstanding success story – the technology is well established; successfully functioning for the last 25 years and is financially sustainable. At the household level TPPF latrines based on the Sulabh Model has also been a success and is in use in 650,000 households. It is however, now necessary in India to replicate it on a mass scale with the construction of public ‘pay and use’ toilets with Biogas plants at the neighbourhood level and the Sulabh TPPF latrines at the household level.

Though the challenge to provide toilet facilities has been totally overcome in rich countries, it is still to be met in developing countries like India. The journey of the toilet may have ended in Europe and North America but it continues in the developing countries.

TPPF = Two-pit-Pour-Flush (toilet)

Reference

1 Hiroshi Umino “Another Room - Hidden History of Toilets”, (Title translated from Japanese)
2 Another room/ibid
3 Roger Henri Guerand, History of Toilets (Title translated in English from French)
4 Bruno Bettelheim, Scars of sex, quoted by Hiroshi Umino in op. cit.
5 Roger Henri Guerand ibid
6 Roger Henri Guerand ibid
7 Translated in English from the original French
8 Roger Henri Guerand ibid
9 Translated in English from the original French
10 Diwane - Chirkin, 1970, India
11 Mary Douglas, Dirt and Taboo
“The Modern History of Toilets can never be complete without a reference to Thomas Crapper, the man who revolutionised the Water Closet, and who was Plumber by Appointment to His Majesty King Edward VII”

This is to certify that I have appointed Mr Thomas Crapper, trading under the style of T. Crapper and Company, Chelsea, into the Place and Quality of Sanitary Engineers to His Majesty. To have, hold, exercise and enjoy the said Place together with all Rights, Profits, privileges and Advantages there unto belonging. This appointment is personal and does not extend to any further member of the firm. And for so doing, this shall be your Warrant.

Given under my hand,

(S.)'

Lord Chamberlain
THOS. CRAPPER & Co.,
Ltd.
Sanitary Engineers
To His Majesty the King
and H.R.H. the Prince of Wales

BATHS, LAVATORIES, SINKS, &c.

Show Rooms:
120, KING'S ROAD, CHELSEA, S.W.
(Opposite Royal Avenue.)

Drawn Half Size
An Early Twyford W.C. with Siphonic Cistern

In Medieval Europe, people used to throw excreta from their houses on the roads below.

Crapper’s Valveless Water Preventer
Government of Bengal
Legislative Department

We, the undersigned members of the council of the Lieutenant-Governor of Bengal of whom the Bill to provide for the cleansing and erection of latrines in first-class municipalities was referred, have the honour to make the following report:—

We have considered the provisions of the Bill. We have provided that the system of conservancy contemplated in sections 2 to 10 may be brought into operation in any part of a municipality, and need not necessarily be extended to the whole municipality. We have made it clear that the fees leviable are not to be necessarily a percentage rate, but may be on a graduated scale, to be fixed by the Lieutenant-Governor in communication with Commissioners in meeting.

We have provided that public notice shall be given to the scale of fees annually. We have inserted a section enabling the commissioners to reduce or remit the fee in cases of poverty.

We have made it clear that where the Commissioner undertake to keep houses privies clean, owners or occupiers shall not be punishable for neglecting them, but we have provided that free access shall be given to the commissioners' servants within proper hours.

We have provided in section 11 for the introductions in any municipality or part of a municipality of the licensing system of scavenging instead of the Haldane system. We have struck out all those sections of the bill which made owners of bustees liable to provide public latrines, sharing the cost with commissioners. We consider that owners of houses and lands should provide latrines for their tenants at their own expense, and that where extra public latrines are required, the commissioners should provide these from the proceeds of the fees under this Act or from the general fund.

We have directed that the Act should be read with and taken as part of the Bengal Municipal Act, which has enabled us to get rid of the section about appeals.

We have made other minor amendments.

We recommend that the Bill be passed as now amended.

A. Mackenzie.
Krishtadas Pal.
Isser Chunder Mitter.

The 29th March 1878.
21 Anthropometric Modules
Made from Human Faeces by the People of Sulabh International, India

Mr. Santiago Sierra assisted by Ms. Mariana David, Sculptors from Mexico, visited Sulabh in January 2006 with a Project to make pieces of artistic and useful shapes out of manure converted from human excreta of the pits of Sulabh Shauchalayas. Mr. Michael Coombs, an artist from London assisted them later. One of the pieces is displayed at Sulabh International Museum of Toilets.

The gallery at 52-54 Bell Street is dedicated to one of Santiago Sierra’s most challenging sculptural projects to date, on display for the first time: 21 Anthropometric Modules Made of Human Faeces by the People of Sulabh International, India, 2005-06. The 21 minimally shaped modules, each measuring 215 x 75 x 20cm, are made of human faeces mixed with Fevicol, an agglutinative plastic. The faecal matter was collected in New Delhi and Jaipur, and was left to dry for three years, during which time the material became inert and degraded back to an earth-like substance, rendering it harmless from a sanitary point of view. The modules are exhibited within the wooden cases in which they were moulded, dried and transported from New Delhi to London. The work seems to have just landed into the gallery, which functions as a frame, enabling the transubstantiation of the faecal matter into art.

This work has been made possible through the collaboration of Sulabh International in India, who sponsored the project by working on it without accepting any compensation. Within the minimal shapes of the modular elements, the work captures the history and present condition of Indian society and, in particular, of the members of its lowest caste: the scavenger. According to government statistics, an estimated one million people in India are manual scavengers (the majority are women) whose work involves the removal of human faeces from public and private latrines and open sewers. Unofficial estimates of the actual number are much higher. Scavengers clean public latrines on a daily basis, using a broom and a tin plate. Human faeces are piled into baskets carried on the head to a location that can be up to four kilometres away from the latrines. At all times, and especially during the rainy season, the content of the basket will drop onto a scavenger’s hair, clothes and body. The continuous exposure to dirt and human faeces, coupled with poor living conditions, make people employed as manual scavengers vulnerable to serious illnesses, amongst which tuberculosis is the most common. Despite various government acts that prohibit the employment of scavengers or the construction of dry, non-flush toilets, this practice is still common throughout the country.

Source: Press Release 19th January, 2008 Lisson Gallery
Dr. Bindeshwar Pathak
Sulabh International
Mahavir Enclave
Palam Dabri Marg
New Delhi 110 045

Dear Dr. Pathak,

Ambassador Clark has asked me to respond to your letter of September 24, 1991. Let me assure you first that both the Ambassador and I myself are very much aware of your organization and your successful work in support of scavengers and of better sanitation.

Your idea of setting up an international museum of toilets is certainly original. I do not believe anything like that has been undertaken elsewhere. While this Embassy cannot provide much help in the matter, I thought that you might wish to contact an American association of manufacturers of sanitation ware in the hope that they might be able to provide some information and assistance. I have noted an address of one such organization below. (The idea of playing the national anthem of various nations as one approaches their toilet in the exhibit strikes me as something that many people might object to.) A simple sign explaining the exhibit may be less controversial.

We wish you success with your endeavour. I remain, with my best regards,

Yours sincerely,

Peter L. Heydemann
Counselor
Scientific and Technological Affairs

American Society of Sanitary Engineering
P.O. Box 40362
Bay Village OH 44140

cc: AMB/X
Dr Bindeshwar Pathak  
Sulabh International  
Mahavir Enclave  
Palam Dabri Marg  
NEW DELHI   110045

Dear Dr Pathak,

Many thanks for your letter of 24 September to the High Commissioner Sir David Goodall, who has now left India on retirement. Thank you also for the two books you enclosed about Sulabh International, which I have read with great interest. Something of the work of your organisation was already known to me and I have great admiration for what you are doing.

You asked for information which could be of value for the Museum you hope to set up in India. In this connection I enclose a small book on the work of Mr Thomas Crapper which I hope will be of assistance on the history of sanitation in Great Britain, together with a handbook on the latest design for women’s public toilets which are now widely available throughout Britain.

Yours sincerely,

P J Fowler  
Acting High Commissioner
Acknowledgments

We gratefully acknowledge the cooperation and assistance received from several well-wishers in India and abroad without whose active support this Museum could not have been created. We look forward to continuing support in future for enrichment of the Museum’s content. We have tried acknowledging names of as many people and organisations as possible, for variety of information received, for developing the Museum. A whole lot of additional information and material keep coming every now and then and with the help of enthusiastic visitors and friends. We wish to apologise if acknowledgment reference of any name has been left out inadvertently.

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