

CAST IRON
SOIL PIPE AND FITTINGS
HANDBOOK

Revised and Edited under the
direction of the Technical Ad-
visory Group of the CAST IRON
SOIL PIPE INSTITUTE

Water



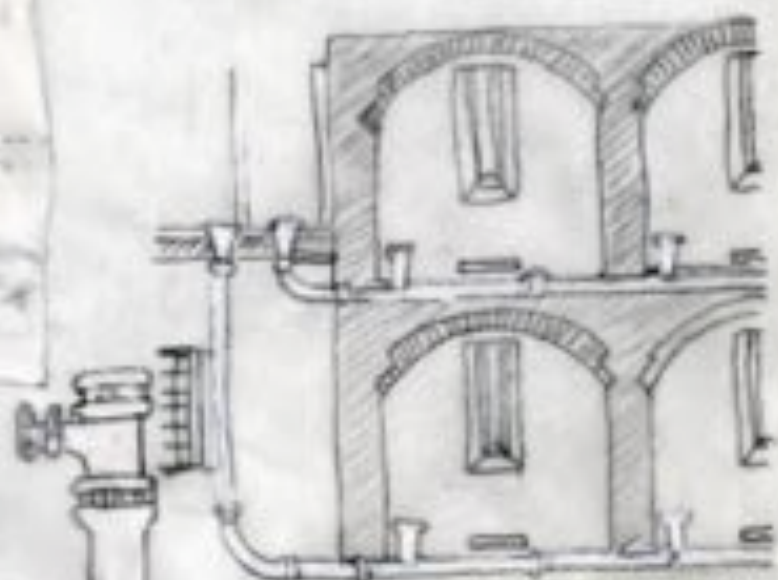
CAST
IRON
TOILET
PAPER

I love my electric
typewriter. I would use
it as the type-face for
the research decals.

phy
years(1991)
ion could

e) "Prison reform,(Pentonville)

*Mavis To Bole, 2007 ESP
2008*



This engraving of a
prisoner enduring the
near suffocation of a
shower bath



*factory
marks
here at
ESP...*



PURGE INCOMPLETE

BY MARY JO BOLE

Essay by JAMES VOORHIES
Proposal drawing photography by CHAS RAY KRIDER
Installation photography by JASON WIEREBICKI
Studio photography by RICK HARRISON
Catalog design by NATE PADAVICK
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Cover image
PROPOSAL DRAWING #5
pencil, gouache on paper

Opposite page
LOOKING INTO CELL #20
History of Penal Sanitation Door with Hopper toilet
recreation in background

Left
EASTERN STATE PENITENTIARY PLUMBING HISTORY
DOOR (detail)
salvaged 1880 prison door, photo retouch paint,
watercolor, goco press, polymer transfers



BENEATH THE FLOORS

by James Voorhies

Beneath the floors of Eastern State Penitentiary in Philadelphia, Pennsylvania, is a complex system of plumbing, a vast network of lead pipes, cisterns, and sewers that was an innovation of engineering when constructed. While commonplace today, this modern plumbing was part of early-nineteenth-century reformatory efforts that used architecture to influence human behavior. Built in 1829, Eastern State Penitentiary was the first of more than 300 prisons constructed in the United States to feature a radial plan and to use solitary confinement to rehabilitate prisoners. The Separate system prison was built with an underlying theory that if inmates lived in single cells and performed daily activities in isolation—sleeping, exercising, eating—they would become penitent and thus reformed of their wrongdoing. Each cell was equipped with a small skylight, reminding inmates of the religious basis from which purification came. Designed by John Haviland, the Separate system—like the panopticon, developed some forty-five years earlier—relied on architecture to affect inmate activities. Silence or penance was the primary agent for reform in this building, and with this system plumbing design was integral.

Today, Eastern State Penitentiary is a historic landmark and museum with site-specific works by contemporary



Opposite page
LOOKING OUT FROM CELL #20

Left top
BOLE PAINTING THE OHIO PENITENTIARY FOR
HISTORY OF PENAL INSTITUTION SANITATION DOOR

Left bottom
HAJOCA AND BELL MARK POTTERY STAMPS ON THE
EASTERN STATE PENITENTIARY PLUMBING HISTORY
DOOR
photo retouch paint, watercolor, polymer
transfers, goco press





artists. Mary Jo Bole's installation *Purge Incomplete*, located inside two opposing cells, investigates the intersections of architecture, psychology, and human behavior with particular attention to the prison's plumbing. Bole's research focuses on the cast iron, hopper-style toilets and "soil" or "filth" pipes used to prevent inmates from making noise and communicating between cells. While the toilet and plumbing design was progressive and a first for institutional facilities worldwide—indeed, even President Andrew Jackson did not have a toilet at the time—their dual role as both plumbing and mechanism for silencing and controlling inmates simply proved unworkable. The soil pipes were often blocked and completely filled because of inadequate water supply and pressure. As a result filth would accrue in the pipes, leaving the institution, inmates, and guards steeped in extraordinary stench. Bole found this inexplicably strange.

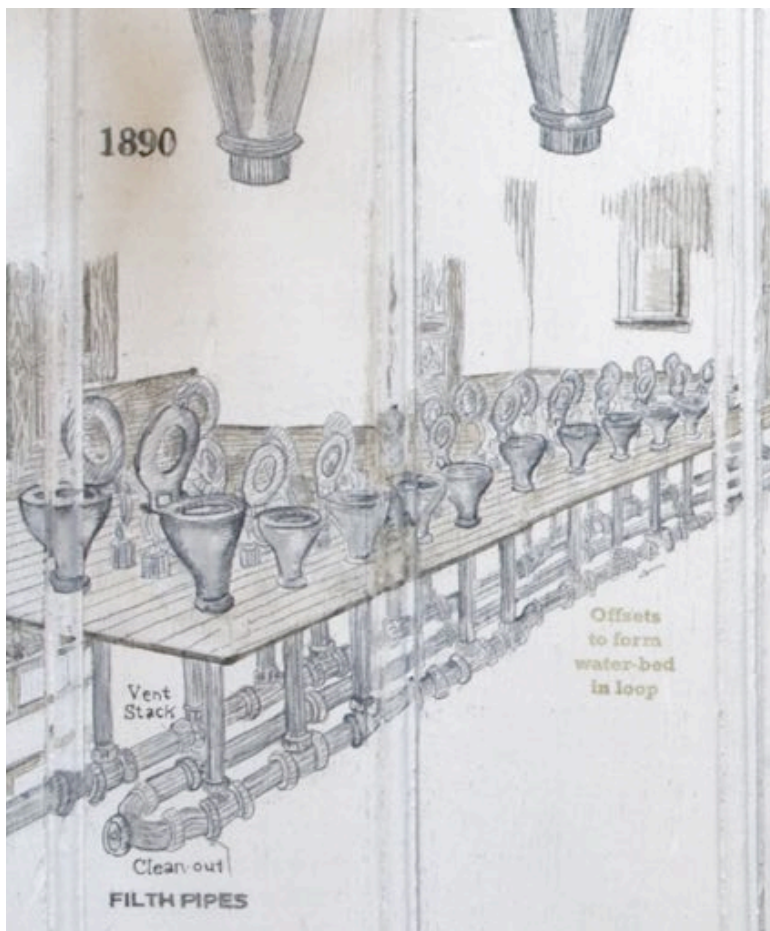


In preparation for this installation she produced seven drawings. But these drawings are more than her layout for the installation. They are thoughtful ruminations and in-depth notes, forms of free association that chronicle the basis of harsh conditions faced by inmates at Eastern State. *Purge Incomplete* is a series of replicated hopper-style toilets made with frosted, colorless blown glass connected with casts of soil pipes molded from a burnt-yellowish polyurethane resin, dimly illuminated and symbolizing the resonant odors. It includes salvaged

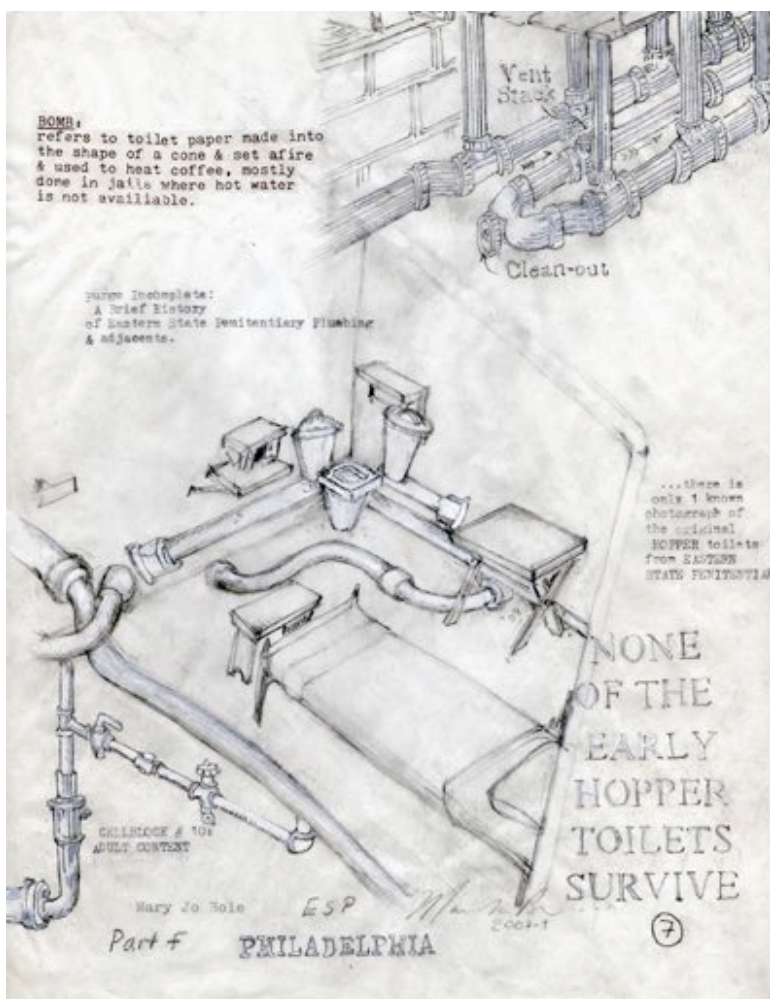
Opposite page
EASTERN STATE PENITENTIARY PLUMBING HISTORY
DOOR
salvaged 1880 prison door, photo retouch paint,
watercolor, goco press, polymer transfers

Left top
SOIL PIPE
cast brass

Left bottom
HOPPER TOILET RECREATION AND SOIL PIPE
blown glass and resin, illumination



prison doors made of wood covered by Bole with intricate drawings and traces of original plumbing decals. The doors contain sketches of cell interiors, cross-sections of plumbing networks, schematics of “odor dissipation,” bits of insight about drain “sabotage,” logos of fixture supply companies, and images of various types of correctional facility toilets. Similar images and information adorn Bole’s work *History of Penal Institution Sanitation*, a ceramic sink like those found in prisons in the United States. The decals on the sink are quotations, photographs, logos, sales manuals, and newspaper texts that tell two distinct histories of the companies that make plumbing fixtures and the inmates who use them. The sink does not have faucets. The user cannot turn it on and off. In fact, *History of Penal Institution Sanitation* symbolizes the intricate mechanisms of institutional authority; water was released from sinks only at certain times and only at the will of some invisible authority.



The unique narratives in Mary Jo Bole’s installation *Purge Incomplete* reveal the forgotten slices of history and the extraordinary efforts taken to control social behavior with the soil pipe network in Eastern State Penitentiary. The unsanitary conditions that resulted from flawed engineering are just minor consequences in the ongoing and persistent efforts of the vast legacy of penal system reform that physically and psychologically continues to make human beings into subjects.

Opposite page
HISTORY OF PENAL INSTITUTION SANITATION DOOR
salvaged 1880 prison door, Kohler factory blank
(with decals), photo retouch paint, watercolor,
goco press, polymer transfers

Left top
HOPPER TOILET MEDLEY DOOR (detail)
photo retouch paint, watercolor

Left bottom
PROPOSAL DRAWING #7
pencil, gouache on paper

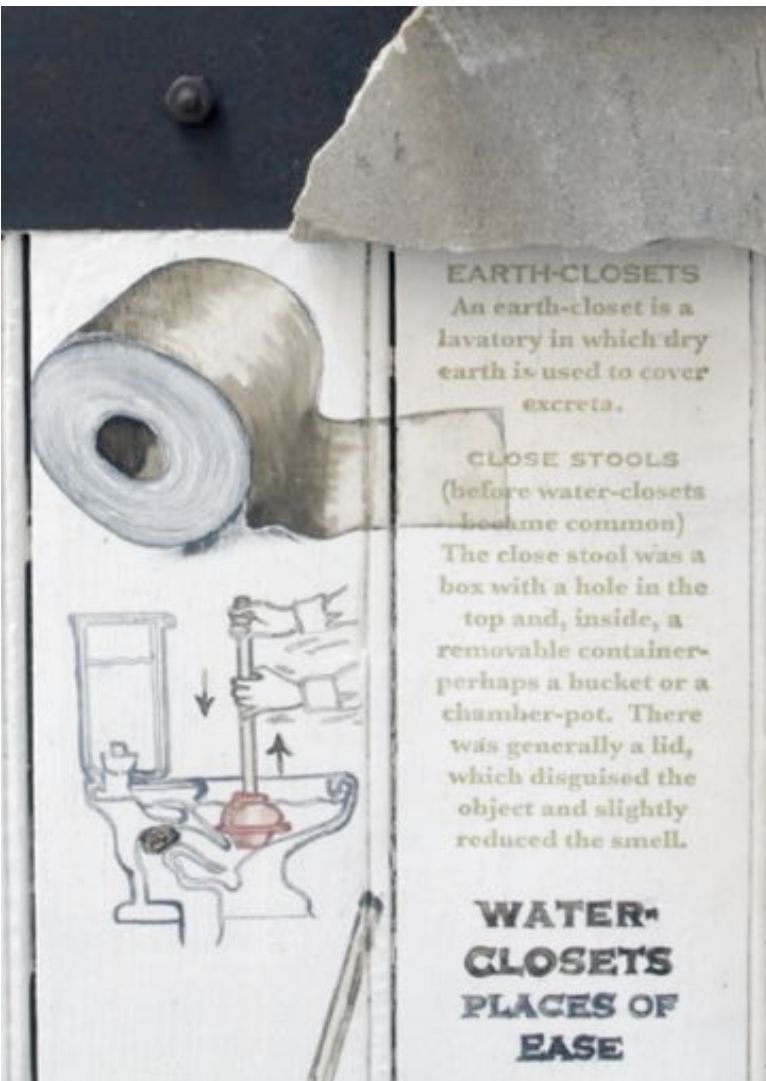


PURGE INCOMPLETE

by Mary Jo Bole

I have long been fascinated with the history, mystery, and science of waste disposal. As a young girl, I was a career bedwetter. In retrospect it is then no surprise that in the last 25 years I have made several art installations about and inside bathrooms. It is with this personal history that I became interested in Eastern State Penitentiary and proposed a work to be installed within two of its cells. I approached the concept with a fascination of how we treat our most base bodily functions—shit and piss. I found it so odd that a prison was the location of one of the most historically modern sanitation systems in the United States.

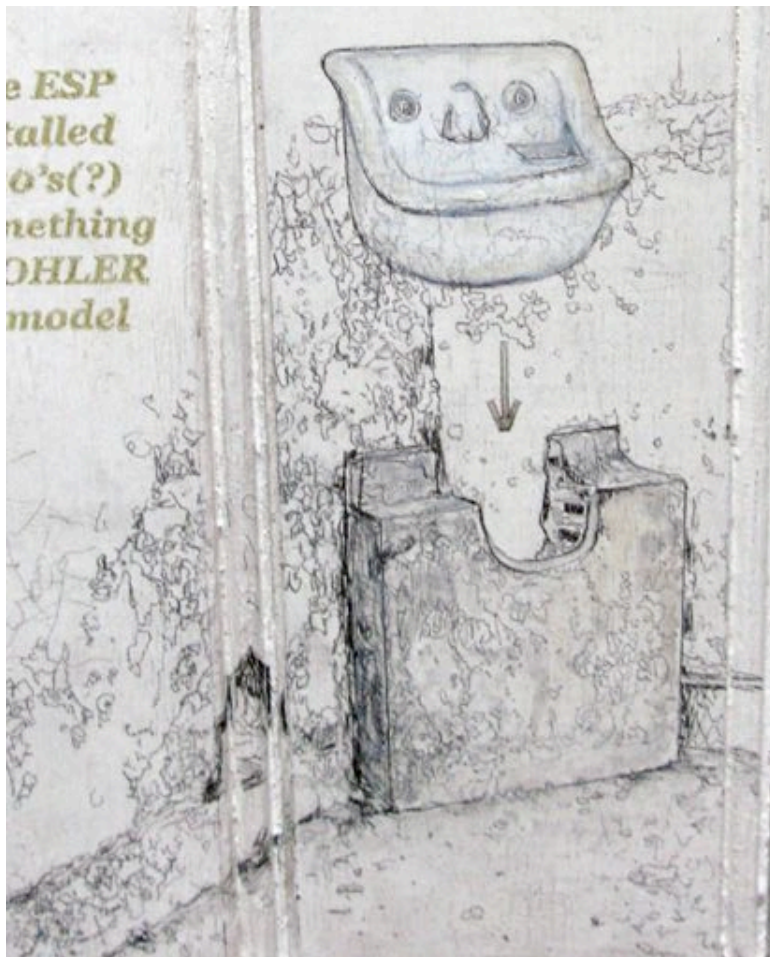
On an early site visit to Eastern State I donned a respirator, gloves, and thrift store overalls to conduct a kind of plumbing archeology. The staff was surprised when I told them about finding the image of William Penn on a cobalt blue factory mark. At this point it dawned on me that there was not an inventory of the plumbing updates since architect John Haviland put in the innovative hopper-style toilets in the 1820s. I discovered model names from the Standard Company such as Ejecto and Expulso, which were not exclusive to prisons. Recently, I discovered that the Super Secur Company was the manufacturer that made the Comby style—a unified sink and toilet with its touted “dual waste system” found in



Opposite page
BATHROOM HUMOR AND ADJACENTS DOOR
salvaged 1880 prison door, ceramic toilet profile,
salvaged toilet paper holder, cast glass, photo
retouch paint, watercolor, polymer transfers

Left top
CAST TOILET PAPER
resin and cast iron

Left bottom
BATHROOM HUMOR AND ADJACENTS DOOR (detail)
photo retouch paint, watercolor, polymer transfers



Eastern State Penitentiary's death row. Super Secur made these exclusively for prisons. Installation of the Comby style toilet was probably one of the last plumbing updates to happen at Eastern State before it closed around 1970. I only found two sink shards with any kind of factory mark. None of the sinks that I believe were installed in the 1950s survive. One said "TEST" and another said "Richmond." I found no information about the manufacturer.

The result of my investigations at Eastern State Penitentiary culminated in the creation of *Purge Incomplete*—a brief (or boiled down) history of the innovative plumbing and subsequent updates at Eastern State in two opposing cells. This installation included four salvaged prison doors from the 1880s that investigate separate sanitation and bathroom related topics, as well as hopper toilet and soil pipe recreations and cast toilet paper sculptures.



Opposite page
HOPPER TOILET MEDLEY DOOR
salvaged 1880 prison door, photo retouch paint,
watercolor, polymer transfers

Left top
HOPPER TOILET MEDLEY DOOR (detail)
photo retouch paint, watercolor, polymer transfers

Left bottom
RECREATION OF HOPPER TOILETS AND SOIL PIPES
blown glass, resin, illumination



THANKS (in chronological order)

EASTERN STATE PENITENTIARY HISTORIC SITE

Sean Kelley (program director), Sally Elk (executive director), and David Cornelius (ESP plumbing expert), and to the entire staff

MY HOSTS IN PHILADELPHIA

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PILCHUCK GLASS SCHOOL AND ARTIST RESIDENCY

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THE KOHLER FACTORY

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ADDITIONAL INFORMATION

maryjobole.com, easternstate.org, bureauforopenculture.org/ofotherspaces.html

EASYCERAMICDECALS.COM

Andy Brayman

HAPCO INC.

Dan McClelland and Rick Payson (resin casting)

THE PRISON DOORS

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James Voorhies (curator) and Nate Padavick (designer)

AND TO EVERYONE ELSE WHO
HELPED ALONG THE WAY—
THANK YOU!

Opposite page top
BOLE IN THE STUDIO

Opposite page bottom
LOOKING INTO CELL #13

ENAMEL FORMS



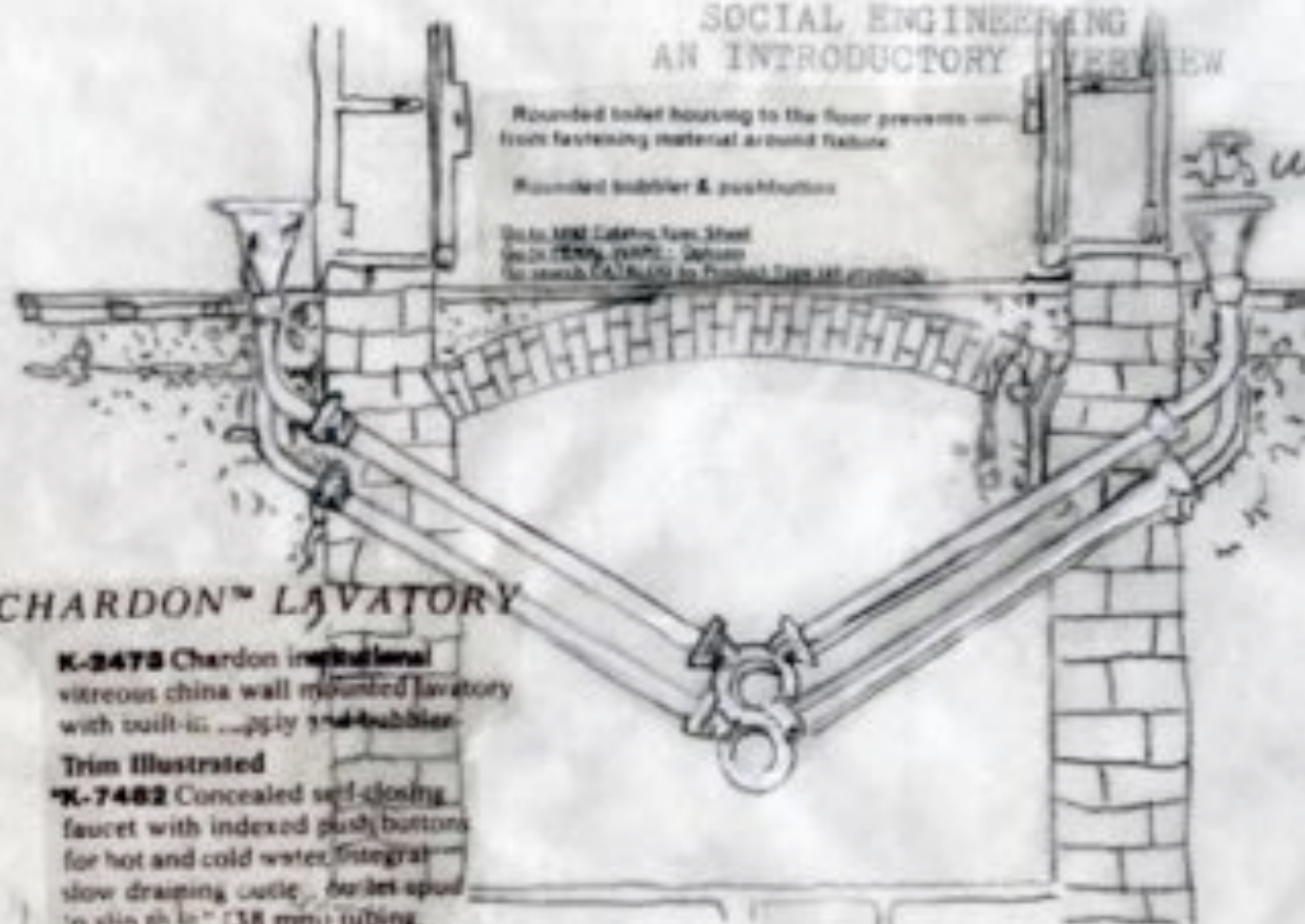
one

SOCIAL ENGINEERING AN INTRODUCTORY SURVEY

Rounded toilet housing to the floor prevents
from fastening material around fixture

Rounded bubbler & pushbutton

Go to 1982 Catalog, Page 374
Go to 1984 Catalog, Page 374
Go to 1986 Catalog, Page 374



CHARDON™ LAVATORY

K-2478 Chardon in vitreous china wall mounted lavatory with built-in... pushbutton

Trim Illustrated

K-7482 Concealed self-closing faucet with indexed push buttons for hot and cold water. Integral slow draining outlet... outlet spud to slip on 1/2" (13 mm) tubing

PENTONVILLE:..this blockage of the drain was misinterpreted as deliberate sabotage on the part of the prisoners..And this misrepresentation led to the philosophy only overturned in recent years that that integral sanitation not be put in cells... (article)

Pentonville, London

Part F