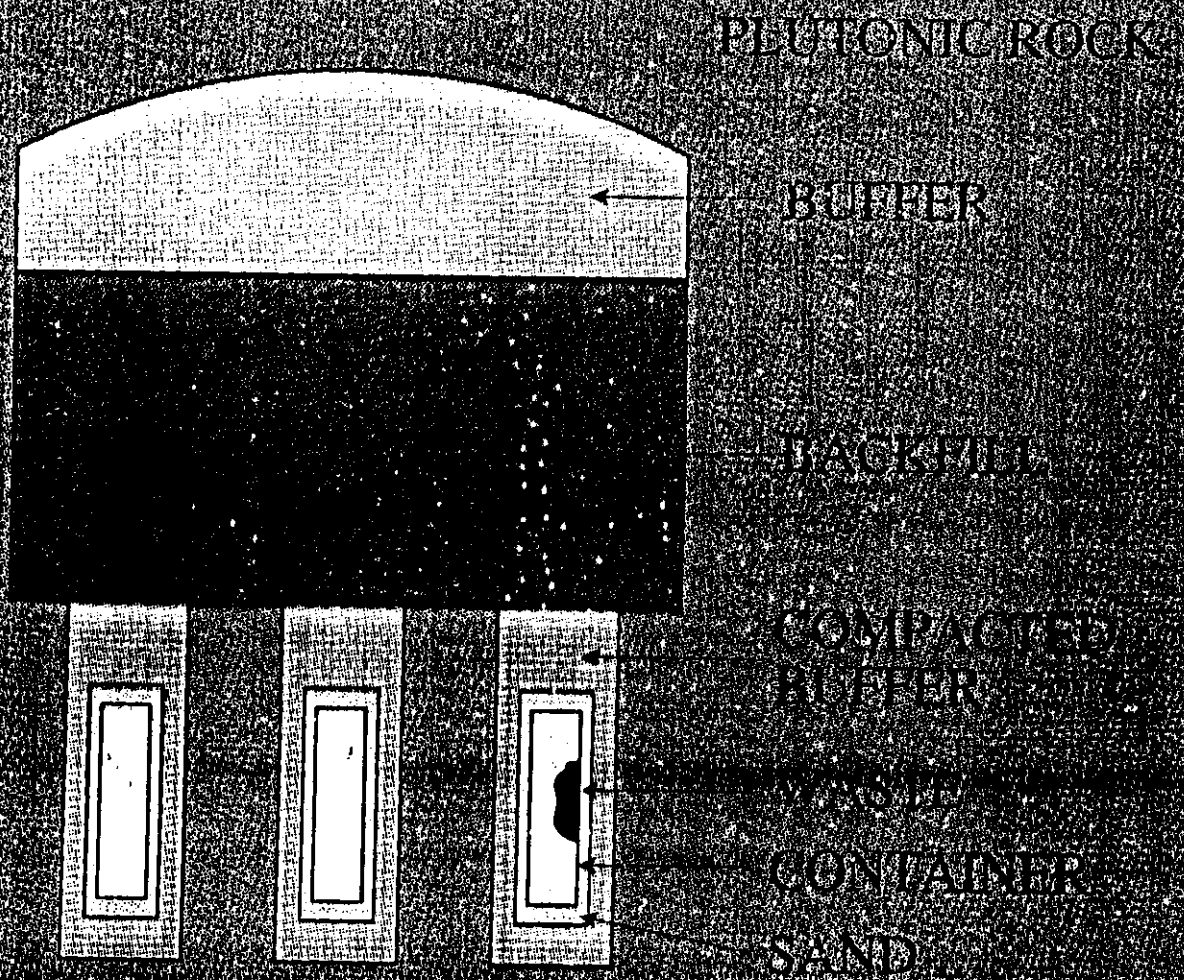


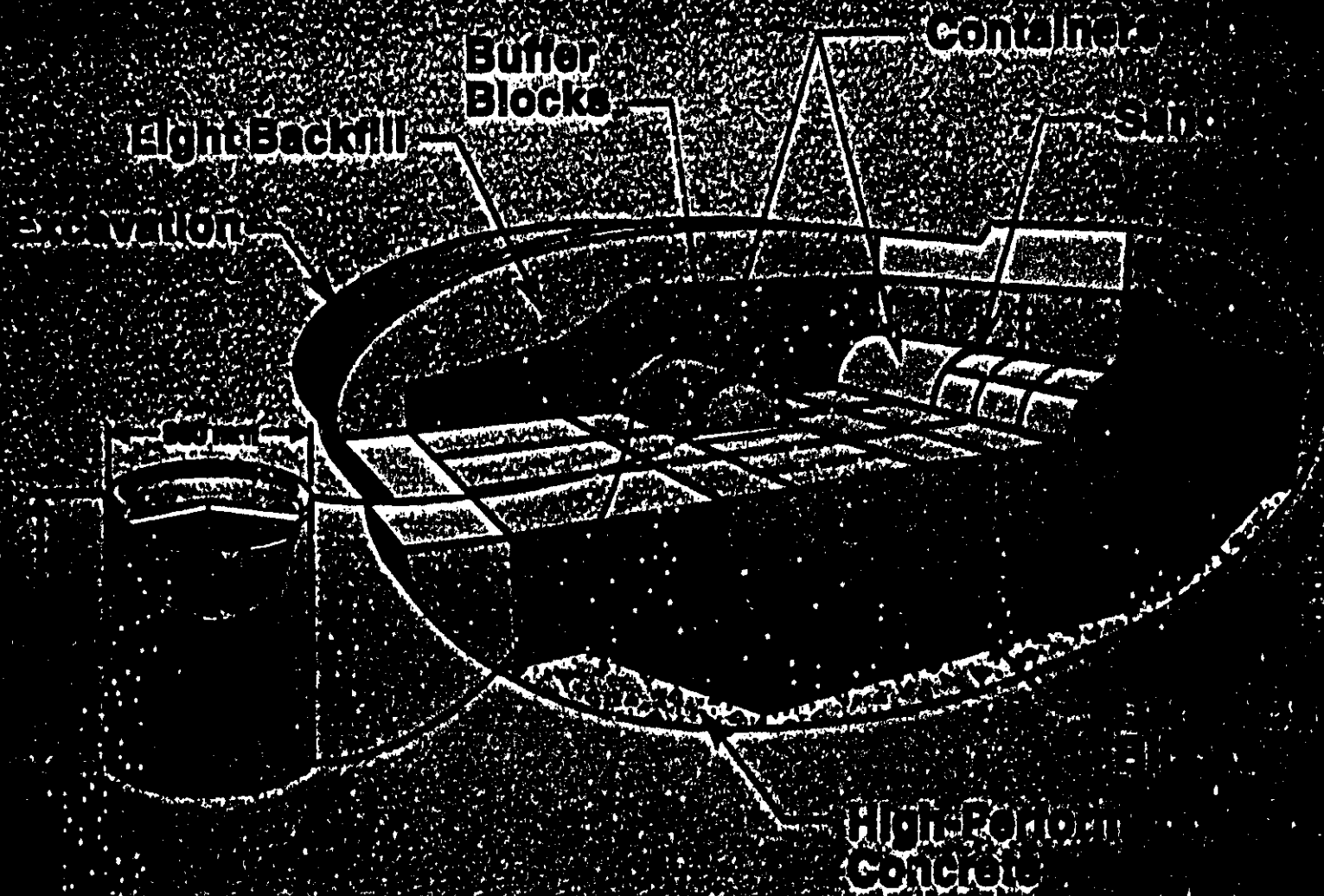
COPPER CORROSION

SWEDISH BRASS
CANNON



TYPICAL DISPOSAL ROOM





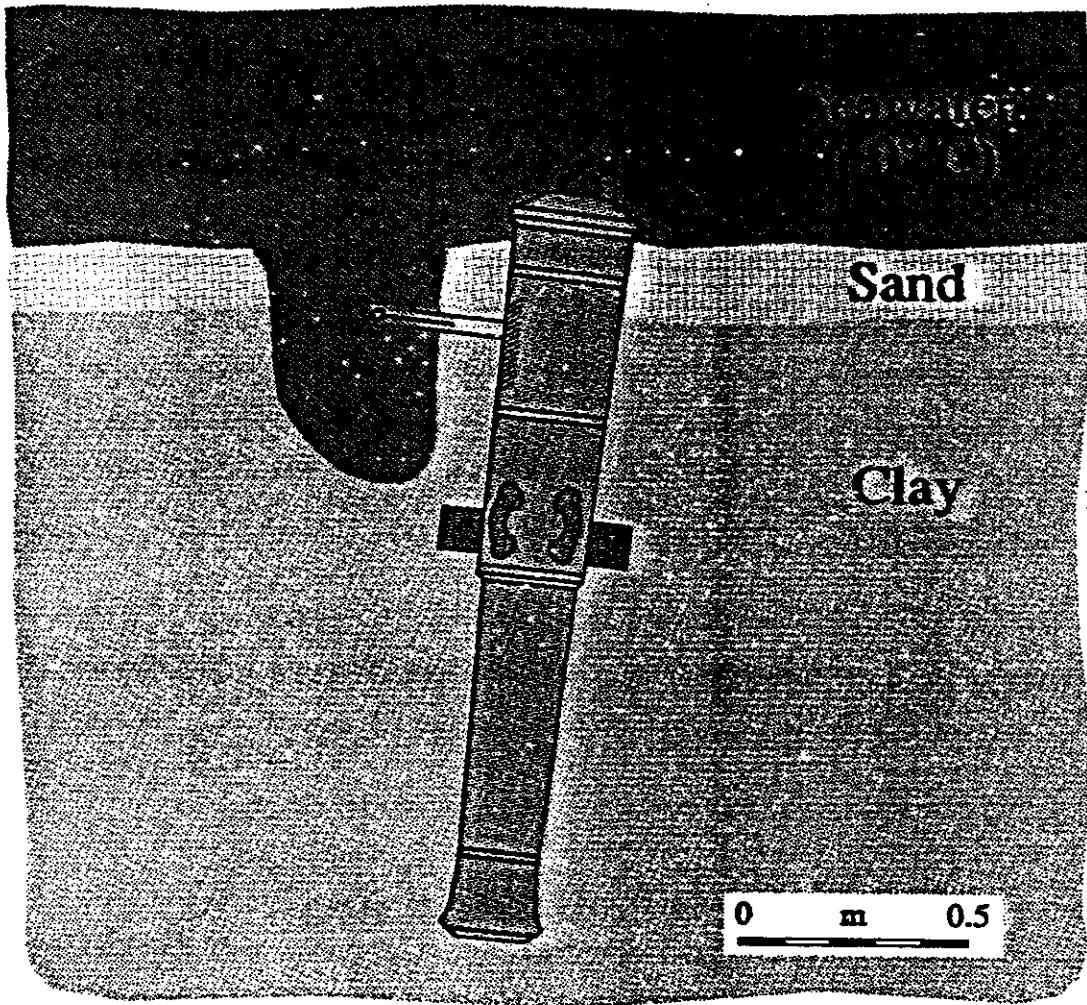
Room Showing the In-Room Employment of Disposal Containers







Swedish Bronze Cannon (1676)

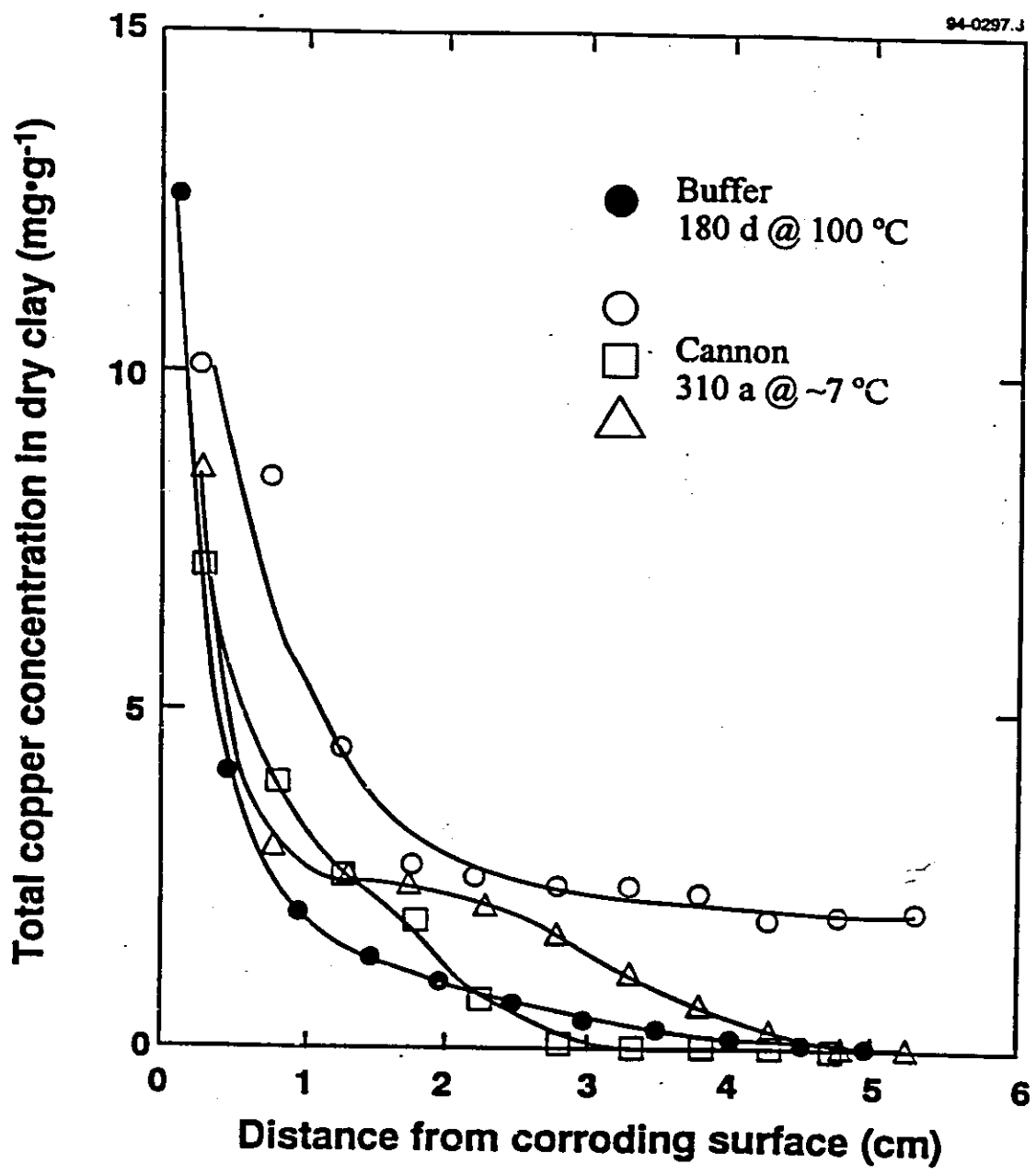


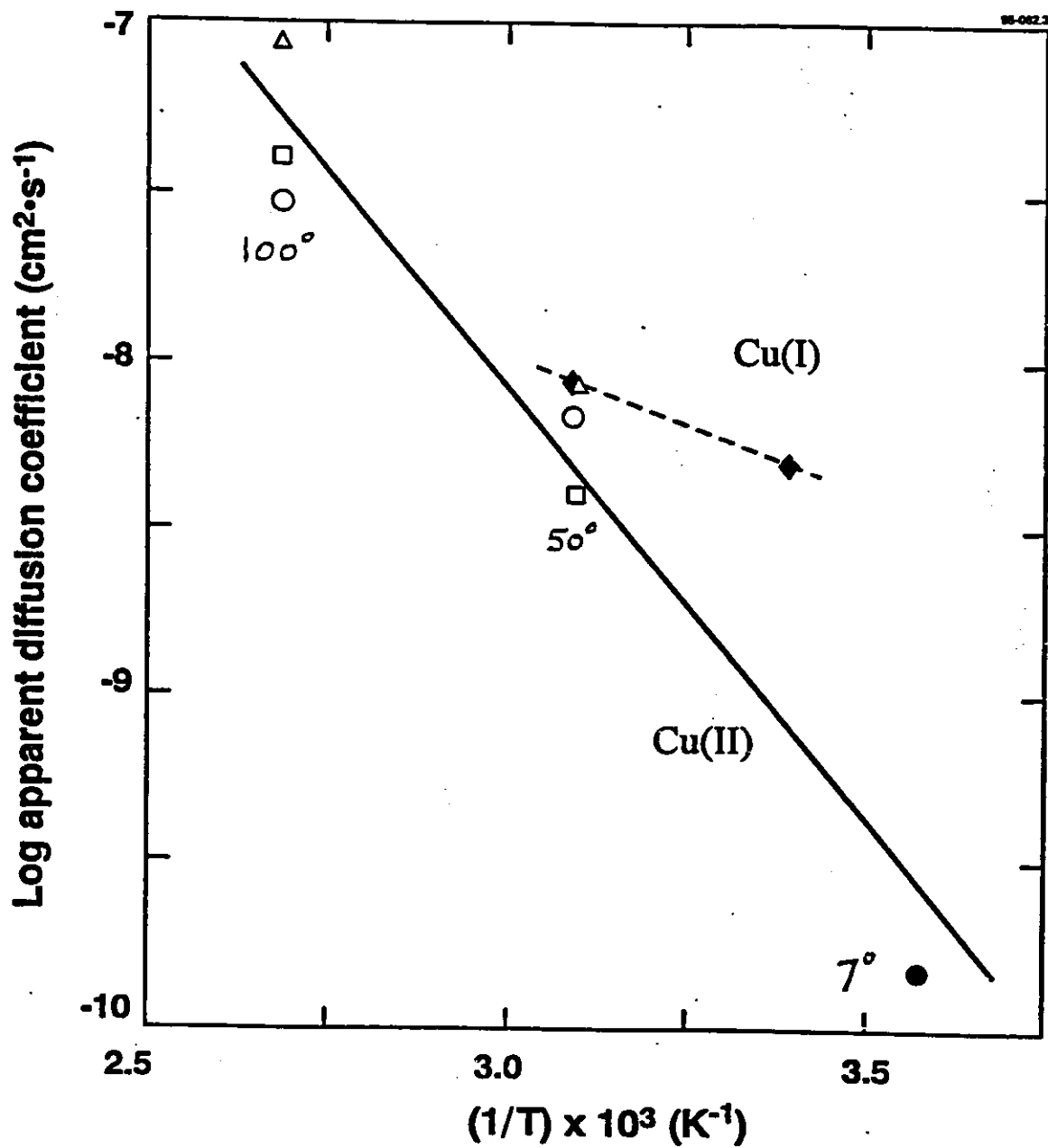
Measured on cannon surface
Cu-corrosion model predicts

Corrosion rate

0.015 $\mu\text{m}/\text{year}$




0.080 $\mu\text{m}/\text{year}$





CONCLUSIONS

COPPER CANNON

-  Copper corrosion is very slow and uniform in clay+sand matrix saturated with saline water.
-  Copper corrosion rate obtained in laboratory compares well with values from >300 year natural experiment. Laboratory rate appears conservative.
-  Diffusion is controlling process for copper transport in clay+sand matrix: analog data support laboratory data.