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*Use It or Lose It: Using Human Waste in Adobe Construction*

Knowing that the Anasazi used urine to make adobe, this project tested whether this strengthened or weakened the adobe bricks, compared to bricks made with water. Urea and salt are found in fracking fluid and urine, so the hypothesis was that those compounds would weaken the adobe. Adobe blocks were made in four different groups, one set containing garden dirt and tap water, another containing urea, water, and dirt, another containing sodium chloride, or salt, along with water and dirt, and a final group containing urea, salt, dirt, and water. Bricks were put through tests including being crushed in a vise, exposed to dripping water followed by weight compression, and dropped onto concrete. Through all the tests, the bricks made with urea held up the longest, then the bricks made with water, then the bricks made with urea and salt, and lastly, the bricks made with salt. Synthetic urine made the adobe weaker, most likely because of the salt in the urine. One possible explanation for this is that salt increases the water content in the brick, while urea helps repel water.