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Iodine Fuming



One of the earliest techniques available for developing latent prints still has its uses.

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Fingerprints from Antiquity: Casting Impressions on Elamite Brick

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Observations of fingerprint impressions on ancient objects are fascinating because they represent a form of tangible imprint evidence that someone actually touched a specific surface hundreds, if not thousands of years ago. Not only was it touched but also the impression may represent a specific individual who handled the object. Ancient artifacts that were made from a soft pliable clay matrix provided an excellent medium for recording friction ridge impressions. Consequently, if there are enough ridge details present when impressions appear on multiple ancient artifacts, it is possible to determine if the friction ridge characteristics originated from the same individual. Furthermore, George Wilton

affirms that observations and curiosity of ancient fingerprint impressions on ancient Japanese pottery led Henry Faulds to his study of fingerprint characteristics.¹

Common items to find fingerprint impressions from the past include pottery, ceramic and masonry materials. All of which contain clay. Although mud bricks have less clay in the matrix than the amount used to make pottery, both materials can record friction ridge detail. When the friction skin comes into contact with the soft pliable clay material, depending on certain conditions, an impression may remain. This is evidenced on the surface of an ancient Elamite brick that is approximately thirty-three hundred years old. The impressions left in the brick may have come from someone who kneaded the clay while making the mud brick or from another helper who touched the material before it dried. Perhaps someone who turned the brick by hand left their fingerprint impressions in the material or a helper transporting the brick to a different location while it was still pliable may be responsible for leaving the visible impressions on the brick.

The most notable markings generally

observed on Elamite bricks are the wedge-like indentions that make specific patterns in parallel rows on the long side of the brick and sometimes on the short side or end when it is a corner brick. Those wedge indentions are markings of an early form of writing used by some ancient cultures known as cuneiform. The people from Elam had their own language but borrowed the cuneiform style of writing from their Mesopotamian neighbors to write their language. In some cases the series of wedge indentions are repeated, in other words the same word, phrase or sentence is repeated. The cuneiform on the brick that has fingerprint impressions was translated by a historian and its translation refers to one of the major deities in the Elamite pantheon.²

Dr. Gerald Shinn, professor emeritus from the University of North Carolina at Wilmington, founded the Museum of World Cultures at the university while he was a professor in the Department of Philosophy and Religion. In order to receive maximum exposure, the Museum of World Cultures exhibits its artifacts in university buildings on campus on a rotating basis. One artifact on loan to the museum in the 1980s was an Elamite brick found in the southwestern part of



Figure 1: A cast of the Elamite brick front face showing five rows of cuneiform writing. No friction impression observed on this face of the brick.

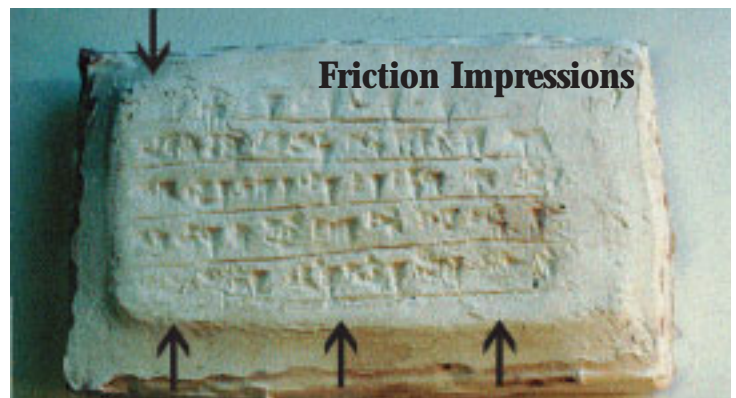


Figure 2: A cast of the Elamite brick end face indicating areas where friction impressions were located. The friction impressions were not visible on the cast.

present-day Iran. In ancient times that area was known as the land of Elam. After learning of Dr. Shinn's Elamite brick acquisition, an examination of the artifact was conducted. In addition to the cuneiform writing, fingerprint impressions were discovered on the brick. The brick had been previously examined by scholars, and it was determined that it was from the Middle Elamite period around 1450 to 1100 BC.³

The Elamite brick is light orange in color and made from mud containing an unknown percentage of clay. It measures 14 inches long 6³/₄ inches wide and 3¹/₂ inches thick. Figure 1 shows the front long side of the Elamite brick; however, there were no observable finger impressions on this surface. The arrows in Figure 2 illustrate the locations of friction ridge impressions found on the end of the Elamite brick.

In an attempt to duplicate the friction ridge impressions, a cast of the brick was made. The ceramic clay was kneaded and rolled out in a thick rectangle about the same dimensions as the brick and approximately ³/₄ of an inch thick. Then the clay was pressed onto the brick to form a negative impression. The clay was removed and plaster of Paris poured into the mould in order to cast a positive imprint of the friction ridge impressions that were inadvertently made on the brick thousands of years ago. The casting method revealed the details of the cuneiform writing; however, it failed to reproduce the friction skin impression details.

References

- ¹ George Wilton. *Fingerprints: History, Law and Romance*. London: William Hodge and Company, Limited, 1938, p. 201.
- ² Harris Williamson, Editor. "The Museum's Elamite Brick," *Discoveries: Museum of World Cultures*. Special Edition. Wilmington, North Carolina, February 1988.
- ³ Gerald H. Shinn. Personal Interview. Wilmington, North Carolina, April 1988.