Early Bronze Age Stamp and Cylinder Seals

Materials Needed:

- Paper
- Pencil
- Sculpey III® Polymer Clay
  10-piece multi-packs (2-oz. bars) —
  9719130 – Basic Colors
  9719134 – Intermediate Colors
  9719133 – Bright Colors
- Set of 12 Nasco Clay Tools — 3300112
- Foil or wax paper for a surface
- Ovenproof glass surface
- Oven
Background Information:

What was the Early Bronze Age Period in Israel?
The Early Bronze Age Period in Israel was from 3300 B.C.E. (Before the Common Era) to 2200 B.C.E. The economic system changed from a kinship type society to a stratified one. Cuneiform writing, the introduction of the cylinder seal from Mesopotamia, and temple building at Megiddo marked the beginning of the period. By 3200 B.C.E., the potter’s wheel and wheeled vehicles were being used. Bronze working began in 3100 B.C.E. and by 3000 B.C.E. urbanization developed. The Early Bronze Age culture collapsed in 2300 B.C.E.

What is a seal?
Stamp and cylinder seals, or glyptics, were an early historical art form. Designs were engraved into stone, bronze, bone, and wood to make seals. A relief design impression was made on a wet lump of clay. This act of sealing was a way of printing on moist clay.

These images were symbols for communication of ideas and concepts (Collon, 1997). In commerce, seals were used to seal containers such as baskets, jars, boxes, or secure storerooms. Seals were used for personal identity and security. These small bead-like seals were mainly worn as an amulet, to protect the wearer. Magical qualities were attributed to the seals and the seal material. Stamp seals and cylinder seals, unlike cave paintings, were movable objects (Kist, 2003).

How are seals used as form?
As objects of art, seals can be considered for part of an antiquity collection. Seals are miniature reliefs carved with simple tools. They can be a source of pictorial data, gleaning knowledge about culture, religious beliefs, art, fashion, private ownership, trading, hunting, and war. Animal and human figures are rendered naturally and simplified.

Generally, the technique used in making seals utilized a mechanical drill and small engraving tools (Nissen, 1977). Small engravers were used to give seals a polished and smooth appearance. Mechanical drills were typically used for schematic figures and geometrical motifs.

What was the function of seals during the Early Bronze Age in Israel?
Before and during the development of writing, most knowledge was transmitted orally or through symbols. Symbols represented an event or object. As trade increased, messages were sent over long distances creating a need for more sophisticated symbols. This form of communication evolved with the use of stamps and cylinder stamps by making deliberate marks or impressions into a lump of wet clay.

The economic system changed from a kinship type society to a stratified one, where economic units increased, hierarchy, and organized labor developed (Nissen, 1977). Sealing was used to guarantee contracts between rulers, show private ownership, and for legal or commercial transactions (Kist, 2003). The cylinder seal was also a source of documentary or technical information concerning political and administrative development.

Stamp seals, which already had a function in the economic system, were followed by cylinder seals (Nissen, 1977). The economic system needed not only the stamp seal, but the cylinder which could function as a detailed narration, or valuable message to the public. A change in the economic system required a change from the stamp seal to the cylinder seal. The cylinder seal provided a wider range of possibilities and more control (Nissen, 1977). It could rapidly cover a larger area of clay than the stamp seal (Collon, 1997). Cylinder seals were more secure because an entire surface area could be sealed and there was less chance of fraud or distortion (Nissen, 1977). Israel was known for decorating pottery with seals and using them as a label on pottery.
Directions: Class One

1. On a piece of paper, make a design of either an animal, person, geometrical shape, or design that may reflect your identity. Think how you might use this design by engraving on clay.

2. Use Sculpey® clay on foil or wax paper and Nasco clay tools to create a stamp with a flat bottom for engraving. You may design a handle for the stamp.

3. Engrave lines or shapes into the flat surface of the clay.

4. Now try a cylinder seal by rolling out the clay into a cylinder shape. You may make a loop on the top so it may be used as a pendant. On the cylindrical surface of the clay, engrave your design.

5. Bake Sculpey® on an ovenproof glass surface at 275°F for 15 minutes per ¼” (6 mm) thickness. Do not microwave or exceed the above temperature. Allow to cool.

When working with polymer clays, additional precautions should be taken. Please refer to manufacturer’s package for additional information.

Directions: Class Two

1. Distribute the baked stamp and cylinder pieces as well as fresh Sculpey® clay.

2. Have students use the stamp on moist Sculpey® clay, creating a relief.

3. Have students roll the cylinder over moist Sculpey® clay creating a relief seal.

4. Bake the relief seals in the oven.

5. Have students discuss the differences in using the stamp and cylinder and why the cylinder seal was important in Israel during the Early Bronze Age.
References:


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