

The Versatile Extruder

by William Shinn



"Cantata," 14 inches in height, stoneware extrusion, carved when leather hard, fired to cone 10.

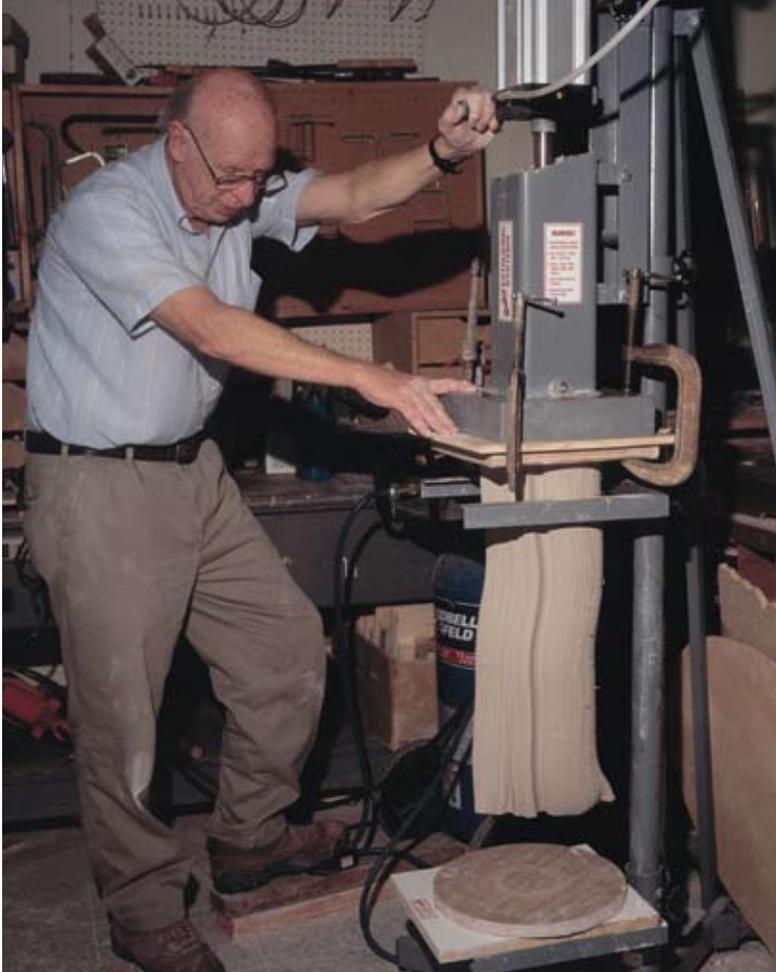


"Brisighella Babe," 18 inches in height, extruded white stoneware on thrown base.

In the field of studio ceramics, the extruder generally has been thought of as a mechanical device for creating simple tubular shapes or for squeezing out straps of clay for handles. Few ceramists have really taken advantage of the extruder's ability to create original forms and, after the initial excitement of squeezing out round and square pots wears thin, often have relegated it to an out-of-the-way corner of the studio or classroom. That's too bad. With a little experimentation, they should be able to extrude

a wide variety of shapes.

I purchased a small extruder, and started experimenting with wooden dies (for me, wood was the easiest material to work with). Immediately, a new, uncharted world of ceramics was revealed. At first, simple slots were cut out of a standard round form, producing finlike protrusions on the extruded tube. This form offered so many possibilities for carving, piercing, stamping, etc., I finally had to graduate to a larger extruder, as the dies became increasingly complex.



William Shinn extruding a fluted/ribbed tube to be altered.

For one series of “fin” forms, I bent the tube as it was extruded. After the extrusion was cut away, the top was pinched and paddled together to form the base. No further clay was added. When leather hard, the fins were carved extensively.

Altering shapes as they were being extruded became a two-person operation, so I finally acquired a power-driven system. Aside from solving all my handling problems, the power-drive extruder afforded

phenomenal savings of energy. This was apparent after my first day-long workshop utilizing the device.

Some more complex dies produce shapes that are easily altered by compressing and expanding. A metal rib attached to a stick makes a handy tool to accomplish this. Wheel-thrown, press-molded and slab-built elements can also be added.

One project was suggested by interconnecting sidewalk bricks as seen in some European countries. The challenge was in designing a die shape that would produce forms that fit one another when turned 90°. Four together would then form an interlocking shape. This has great creative potential and might be a good assignment for an advanced student. However, while the project presents interesting technical problems, the real satisfaction for me was in the discovery of new sculptural forms.

The extruder is an ideal tool for sculpture—both abstract and representational—and is particularly handy for work requiring modular elements. Dies created specifically for this purpose can produce work that can be easily bent, twisted and joined together. When the work is sliced with a wire at an angle, exciting results are sometimes revealed. The ability to quickly extrude a number of pieces in a short amount of time also encourages experimentation.

As with all claywork, timing of the various production steps is extremely important. Immediately after ex-



"Viking Vessels," 22 inches in length, extruded hulls, with handbuilt and press-molded additions.



"Tourbillon Carré," 10 inches in height, extruded stoneware, center piece thrown and altered.



Extruded ridges can be shaped to form the edge of a hump mold. After a bisque firing, they will be glued into position, and the space filled with plaster to complete the mold.



For large-scale items, a cylinder can be extruded and attached to a thrown slab, then shaped into a vessel.



A stick with a metal rib attached to the end is ideal for shaping and refining from the inside of a tall extrusion.

truding, the clay can be easily rolled and twisted. Later, when the clay has become leather hard, designs can be carved or walls pierced.

The creation of certain representational forms is ideally suited for an extruder as well. Boats, for example, are easily made by the process. While a submarine shape was not much of a challenge, a sailing ship was much more difficult. A die patterned after the cross section of a Viking vessel produced a shape that could be easily pinched into the familiar upturned bow and stern. Filed grooves in the die produced



"Four-Piece XTR Vessel,"
6 inches square, extruded
white stoneware, with
slab base.



"L'Envolé III," 22 inches in height, extruded, split and altered white stoneware and glazed.

the overlapped planking. After the firing, I was surprised to find that the piece floated.

Another more practical use of the extruder to the production potter is the making of rims for free-form-platter hump molds. Freshly extruded, the strip of clay can be bent and cut into a variety of shapes. After bisque firing, the pieces are reassembled and glued to a flat surface, and the cavity filled with plaster.

The extruder can also be a valuable aid in wheel throwing—particularly in creating tall forms. Centering and lifting a large amount of clay on a wheel requires a great deal of skill and effort. The extruder can quickly and easily produce the initial tall cylinder. After the extrusion is cut free, it is simply carried to a wheel and centered for shaping. Thrown forms 20 inches in height or more are easily achievable utilizing this technique.

The first-time use of a new die often produces serendipitous results. The uneven distribution of clay in the first extrusion will often twist and tear into interesting shapes be-

fore finally combining into a straight form. With ingenuity, it is possible to salvage such pieces and combine them for sculptural forms as well as pots. It is even possible to encourage such aesthetic “disasters” by purposely splitting the form at the beginning of the process. This is accomplished by fastening a wire or monofilament across the base of the die and removing it halfway through the process. The extrusion is then left hanging to become leather hard overnight. I am occasionally greeted next morning by a clump of clay on the floor (this seems to occur only on the more successful pieces). Be sure to look carefully before discarding any “accidents,” though. On one such occasion, I worked an accident into a sculpture that won an award.

There are no doubt many other possibilities for this versatile tool; in addition to vessel and sculpture forms, extrusions could be used to produce lamps, fountain modules and musical instruments, to name just a few. I recommend everyone approach extruding with fresh eyes. You will not be disappointed.