INTRODUCTION
Using polymer clay to make molds and casts of common fossils for teaching introductory students and for outreach activities is a relatively quick and simple process. Getting an original fossil to a polymer clay mold and then to a polymer clay cast can be completed in less than an hour. The ability of polymer clay to capture morphological detail (Figures 1 and 2) along with its durability makes polymer clay a good choice for classroom use. The polymer clay molds and casts can be used for both study and outreach-related activities as well as facilitating discussion of preservation modes (external molds, natural casts, etc.). We have used polymer clay molds and casts in activities with students ranging from primary school to college students. The casts are then baked and cooled just like the molds. It should be noted that overworking the polymer clay during the molding process can make the cast eventually break or disintegrate. The casts are then baked and cooled just like the molds. It should be noted that overworking the polymer clay during the molding process can make the cast eventually break or disintegrate.

MATERIALS & METHODS

We have used polymer clay molds and casts in activities with students ranging from primary school to college students. The casts are then baked and cooled just like the molds. It should be noted that overworking the polymer clay during the molding process can make the cast eventually break or disintegrate. The casts are then baked and cooled just like the molds. It should be noted that overworking the polymer clay during the molding process can make the cast eventually break or disintegrate.

USE IN TEACHING & OUTREACH

We have used polymer clay molds and casts in activities with students ranging from primary school to college students. The casts are then baked and cooled just like the molds. It should be noted that overworking the polymer clay during the molding process can make the cast eventually break or disintegrate.

LITERATURE CITED


Figure 1. Rostral of Glyptotherium shell, Glyptotherium osteoderm, and Glyptotherium tooth.
Figure 2. Ammonite casting and fossilization. The polymer clay is used to fabricate molds from these fossils, which are then hardened using a heat source such as a toaster oven. These molds and casts are suitable for production of student study materials and even exam materials due to their ability to capture detailed morphology. Interestingly, students, or even K-12 children, can fabricate the molds and casts themselves, enhancing "hands-on" activities as well as facilitating discussion of preservation modes (external molds, natural casts, etc.). Polymer clay molds and casts make ideal learning tools for use in classroom activities due to the widespread use of polymer clays in primary and secondary school art classes. Newer forms of these polymer clays are phthalate- and lead-free and safe for use by children.

Polymer clay molds can easily be used to make casts of specimens as an activity within a typical laboratory or outreach session required to produce a polymer clay mold and then to a polymer clay cast can be completed in less than an hour. The ability of polymer clay to capture morphological detail (Figures 1 and 2) along with its durability makes polymer clay a good choice for classroom use. The polymer clay molds and casts can be used for both study and outreach-related activities as well as facilitating discussion of preservation modes (external molds, natural casts, etc.). We have used polymer clay molds and casts in activities with students ranging from primary school to college students.

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Heiser, J. and May, 1995; Mills and White, 1994). We have used polymer clay molds and casts in activities with students ranging from primary school to college students. The casts are then baked and cooled just like the molds. It should be noted that overworking the polymer clay during the molding process can make the cast eventually break or disintegrate. The casts are then baked and cooled just like the molds. It should be noted that overworking the polymer clay during the molding process can make the cast eventually break or disintegrate.

Figure 3. Making a mold of a fossil tooth from Dasypus shell.
Figure 4. Mold pressed into polymer clay cylinder.
Figure 5. Mold and unbaked polymer clay cast.
Figure 6. Mold pressed into polymer clay cylinder.
Figure 7. Mold and unbaked polymer clay cast.
Figure 8. a. Haliclytus osteoderm, b. Glyptotherium shell, c. Glyptotherium osteoderm, d. Cyclonema shell, e. osteoderm, f. shell, g. osteoderm, h. shell, i. tooth, j. tooth, k. footprints, l. shell, m. Glyptotherium osteoderm, n. Glyptotherium tooth, o. Trichechus tooth, p. Basilosaurus osteoderm.

Figure 9. Making casts, molds, and fossil activity.