



# Fostering Experiences Between Young Children and Clay

by Cathy Weisman Topal

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Clay is a wonderful medium for young children to explore. A simple hand motion can change the form of the clay in a matter of seconds. Clay can be poked, pinched, pounded, rolled, squashed, squeezed, stretched, torn, broken, attached, and much more. Because clay is a three-dimensional medium, it tends to foster exploration of three-dimensional objects. Since most objects and creatures in our world are three-dimensional, you can see that the medium of clay holds a great deal of potential for thinking about, exploring, and reacting to the forms in our world.

Clay is therapeutic. When one works with clay, a special kind of communication takes place between the hands, the clay, and the imagination. It is a very personal experience. Clay is responsive. It gives immediate feedback. Anyone can make a shape in clay and, with experience, gain more skill and control in shaping clay into a desired form.

Generally, young children approach clay by squeezing, pressing, and pounding it with their hands and fingers. They become familiar with the feel of the clay. As children spend more time with clay, they gain control over their hand movements and begin to construct with the clay. They discover that they can break pieces of clay apart and form balls and coils. They begin to find form in their work and often talk to themselves as they manipulate the clay. You might hear stories of snakes, mountains, monsters, and caves, even though the clay may look like a big lump to you. In essence, the above stages of working with clay correspond to the scribbling stages in drawing. Uncontrolled pounding and pressing become more controlled balls, coils, and shapes which the child then names and arranges in various design configurations. Paralleling the design stage, the child

finds that he or she can shape clay to resemble realistic forms and scenarios.

If clay is such a wonderful medium, why isn't it more widely used? Most teachers would say that they don't use it because it is messy or that they haven't had any experience with clay themselves. In actuality, once a teacher has a bag of clay, a few work boards, and a knowledge of basic clay skills, clay is an easy material to pull out anytime and to put away.

## Introducing Clay

In our introductory discussion, I want to generate a feeling of wonder and appreciation about this natural material that comes from the earth — that actually is earth. I want children to have a sense that it is a basic medium that people have shaped in countless ways since the beginning of time.

As I ask questions, I am constantly manipulating the clay, suggesting possibilities, and pushing it back into a lump. It is important that children see their teacher enjoying the feel of the clay as she explores it. Sometimes I'll read excerpts from *When Clay Sings* by Byrd Baylor which I think helps children to appreciate the material that they are about to use:

*. . . Now Indian children make a game of searching for bits of clay that were once somebody's bowl or mug or cooking pot or dipper. . . . They say that every piece of clay is a piece of someone's life. . . . They say the clay remembers the hands that made it. . . .*

I always introduce clay by asking the following questions to see what ideas the children already have.



“Does anyone know what this is?” Yes, clay.

It’s different from play dough which we make from flour. After you have worked with the clay a little bit, see if you can figure out some differences. (Clay is firmer. It can be built taller, encourages more intricate work, and holds its shape much better than play dough. Working with clay leads to very different and more in-depth experiences. But working with play dough is a good introduction to using three-dimensional, malleable materials.)

“Do you have any idea where clay comes from?” Clay comes from the earth. It is made up of fine-grained particles of rock that are broken down over many years and then are mixed with water. The color of the clay depends on the particular rocks and minerals. Clay is usually found near water. “Has anyone ever dug clay from the ground?”

“Can you think of any things that are made from clay?” (flower pots, plates, bowls, cups, sculptures, bricks, even houses)

## Exploratory Exercises — Exercises for Warming Up Hands, Clay, and Imagination

Children need time to get used to the feel of the clay. The following exercises are simply ideas for guiding exploration. As you watch and listen to the children, you will have a few strategies ready for picking up on what children are already doing, and you will have a sense of which exploration to introduce next. Each exercise calls different muscles of the hands, fingers, and arms into play and encourages the development of a variety of different kinds of hand control and skill in using clay. Each kind of hand movement tends to tap certain associative and imaginative experiences. *Hands are the only essential tools.* Refrain from giving out sticks and other implements which remove the hands from the clay and from the manipulative experience. A fist size ball of clay is a good beginning size.

**1. Discover at least two ways that your hands can change the shape of the clay and tell me what you discover.** Can you poke it? Pinch it? Squash it? Flatten it? Squeeze it? Start keeping a record of the descriptive words that children use as a reference. Descriptive words increase children’s vocabularies and are a means of helping children revisit an experience. “Roby found that he could use his thumbs to poke deep holes into the clay.” “Sarah likes using her fingers to smooth the clay.” “Molly pressed and flattened her clay to make big, thin pancakes which she rolled and stood up.”

**2. Shaking hands with clay.** Children naturally begin making clay pancakes, so why not capitalize on that tendency and actually explore the different parts of the hand and the different lines and textures that they can make. Explore how they can change the texture and surface of the clay.

- Pat your clay into a large pancake and cover it with fingerprints. Cover the entire surface. Close your eyes. Feel the surface of your clay. What does it feel like — bumpy or smooth? Turn your clay over. Try knuckle prints — remember to cover the entire surface. Does this texture feel different than the fingerprints? How? Try thumb prints, palms, fists, elbows, fingernails, and the side of your hand. Can you guess which part of the hand made a particular impression?

- Make a finger texture chart. What kind of textures can you make by just using your fingers? Try poking shallow holes and deep holes, pinching small ridges, pulling long grooves, alternating thumb prints. Children can choose one of their finger textures for the chart. It should be different from the ones already collected and it must cover the entire pancake. Children should be able to say how theirs is different. You might help by pointing out differences in size, depth, and direction.

- Poke space into your clay by poking places that go in and through. Make big and little indentations. Can you make a see-through place? Turn your clay around and look at it from different points of view. Try it next to a light source and look at the shadows.

**3. Squeezing tall shapes with clay.** Many children do not engage their arm and shoulder muscles while they work with clay or with other materials. It is actually many of these same muscles that are necessary for the development of writing skills in the future.

The following exercises are ways to encourage children to begin using these muscles during play and exploration. Let children know that it is important for them to use these muscles, and that you will help them to see if they are using them by gently laying your hands on their shoulders. You’ll be able to feel the movement, and so will the children.

These exercises require a bit more clay. Working from a big soft lump of clay in the middle of the table and encouraging children to pull clay from the lump, shape it, and reattach it is another option for this exercise. It tends to encourage group work. Again, demonstrating as you talk is very important.



- Can you push, squeeze, and shape your clay into a tall mountain? How high can you squeeze your shape before it begins to droop? Use your fingers, knuckles, and thumbs to make textures, holes, tunnels, and caves. Can you connect your clay with a friend's to make a mountain range?

- Pinching and pulling places that come out. Identify pinching fingers. Try modeling or pinching the air before moving to the clay. Go around each protuberance lightly with your first finger and thumb to strengthen. Make your protuberances thick and sturdy.

- Pinching/pulling/modeling a ridge. This is another hand strengthening skill and a way to make a strong protuberance. Encourage children to use all of their hand muscles, not just the fingertips. Can you feel the difference? Try pulling up a strong and tall ridge or fence.

- Sharing your discoveries. Children love to share their discoveries and to talk about their work. In fact, stepping back and taking a look at what has happened is an easy and exciting way of generating new enthusiasm, as well as new ideas and techniques. You will be surprised at the depth of children's thinking, vocabularies, and perceptions.

When I see that children have created some interesting structures, or that attention is waning, I'll stop the children and ask them to go around the table and share *one* discovery that they made about clay. Or I might ask them to tell what part of their hand they used to shape a particular part of the clay and what kind of movement they used. This sharing time always gives children new ideas. Sometimes I'll say, "Now go back and try out one idea that interests you from our sharing session."

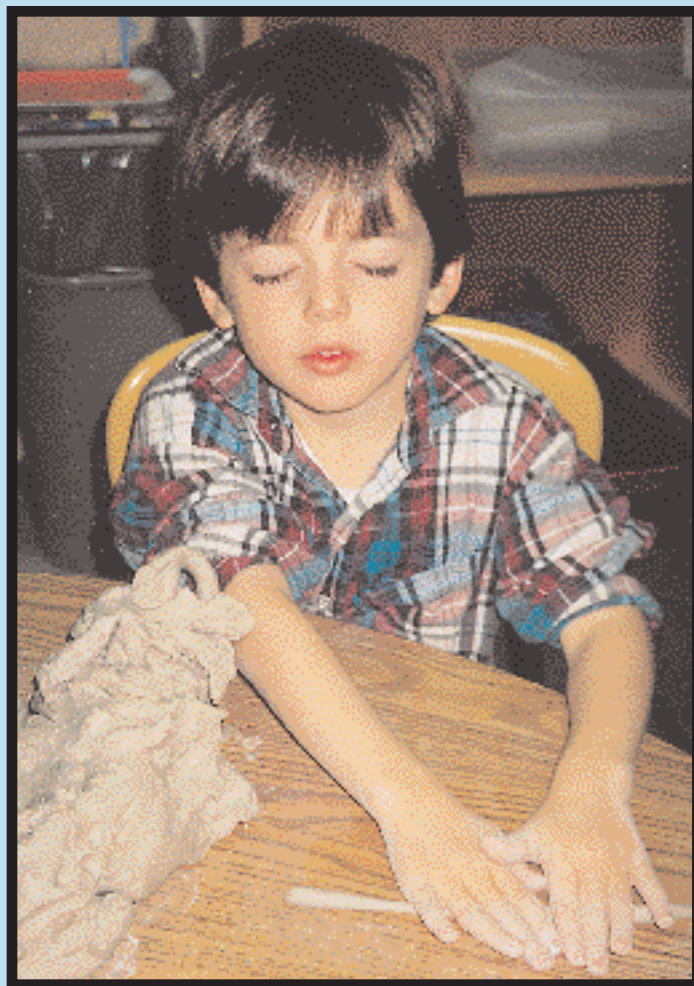
At other times, I'll give clean-up instructions: "Put your clay back into a ball. Use your clay as a stamp to collect all the tiny bits of clay on the table. Now poke a deep hole with your thumb. I'll pour some water into it and you can close it up. The water will work itself into the clay so that it will be soft enough to use tomorrow."

- Squeeze and sculpt. Squeezed shapes are often suggestive of fantastic creatures and dinosaurs. After a few sessions of exploration and squeezing, children have a great time making squeeze creatures. Reading books such as *Goodnight, Dear Monster* by Terry Nell Morris and *Where the Wild Things Are* by Maurice Sendak gives ideas for parts of creatures to include.

Name all the many parts of a creature first — head, body, legs, tail, eyes, nose, mouth, horns, toes, scales, wings, whiskers. Start by squeezing a sturdy and interesting shape. Turn it around to find the head. Poke a mouth. Pull legs, tail, and wings. Add on coils and balls for eyes, nose, ears, teeth and press them on.

**4. Breaking clay into pieces** and reassembling in a new way is another focus to use to explore clay.

- Rolling coils generally precedes rolling balls and is an exciting and rewarding clay skill to practice. Take a small piece of clay and roll it back and forth between your hands. When it is too big to hold, put it down on the table and roll it back and forth between two hands. Keep your hands moving gently over the clay. Practice to see how much pressure you need. Standing up and using the weight of your body makes rolling coils easier. Closing eyes makes your fingers even more sensitive. It helps your fingers know where they need to go. Try



Photograph by Cathy Weisman Topal





making fat coils and thin coils, long coils and short coils. Join coils together. Roll some into spirals. Stand some coils up in the air.

Step back and try to record the children's thinking, conversations, and observations. Here are a few remarks made by a small group of three year olds practicing rolling coils: "I'm making a whole lot of circles." "I made a ring. I really made an 'O' instead of a ring." "I made a person. Lookit — a snake! I'm making a lot of legs for this person because it's a spider person — a lot of legs — 1, 2, 3, 4, 5, 6 legs. See?" "I made a person. I made a kind of dinosaur that nobody knows what it is." "I made an egg on toast." "Do you know how I made these (marks on clay)? With my fingernails!"

- **Rolling balls.** Balls can be rolled between your hands or on the table. Which method works best for you? Can you roll tiny balls between the tips of your finger and thumb? To roll a ball, hands need to move around and around, whereas rolling a coil or snake demands rolling back and forth and back and forth. Instead of telling the children, let them discover and articulate the difference in their own words. Try to record what they say.

- **Rolling balls and coils.** After practicing rolling balls and coils for a day or two, try this exercise on a separate day. Be sure to refer to the skills and descriptive words that the children have been using. "Emily discovered that she could make a circle from her coil. Kristi made a family of snakes, Joe put all of his coils together to make a dinosaur. Camille rolled her coil into a spiral." Break a ball of clay into at least six pieces. Roll at least three coils and three balls — more if you like. Then put them together in a new way. You'll be surprised at what children construct. Design configurations, animals, spiders, people, forts, and bridges are popular constructions. Group constructions are also fun.

- **Drawing your construction.** One of the first ideas that I tried after returning from a trip to several pre-primary schools in Reggio Emilia was to ask children to draw what they constructed. The first time I tried this with four year olds, I was scared that I was asking them to do something that was too difficult. I was amazed. They did it easily. I was intrigued and began asking children to draw constructions that they had made in other materials as well. When children began saying "Can I draw it now?," I knew something important was happening.

As an alternative to saving work, try asking children to draw their construction just as they built it, starting with the first shape, or the bottom. They can select the point of view that they find most interesting or that they like



*Photograph by Cathy Weisman Topal*

best. I like to give children black fine line markers to use because of their clarity. This causes them to think back over the experience and the various steps of their construction process.

**5. Constructing with balls, coils, and slabs.** The exploratory exercises listed above are also ways of practicing basic clay skills. When children can form and describe how to make coils, balls, pancakes or slabs, and squeezed shapes, they are ready to use clay to construct something that interests them. The key to constructing or recreating what you know about a form, such as a face or person or classroom pet, is to explore it by touching it (if that is possible) and to identify and name the parts. You can ask children which part they will start with and which method (balls, coils, etc.) they will use to make that part. It is the reverse of finding form in the shapes that the clay suggests.

Using rolled forms makes the parts distinct and easy to read visually.

## **6. A few tips about using clay.**

- **Purchasing clay.** Clay can be purchased in most local art stores and from potters living in your area. Look up pottery making supplies in your telephone book. Try to get moist, low fire red, gray, buff, or white clay that is ready for use. Clay is relatively inexpensive and can be used over and over again before it is fired in a kiln. It is not necessary to save most clay experiments, but occasionally there may be something you do want to save.

Clay sculptures can simply be left to air dry or they can be fired in a kiln. There are also several oven-fire clays on the market that can be baked in an oven at about 250 degrees Fahrenheit. There are self-hardening clays as well. Often there are parents who are potters or who have had experiences with clay and would welcome the chance to help introduce clay.



- Work surfaces. Children can work directly on a table but, for the long term, I prefer small pieces of 1/8" thick treated Masonite about 10" square as a resting place for clay and a way to carry it around. Cardboard squares also work. Covering the table with a large garbage bag taped to the bottom of the table is another alternative. Children can simply return all the clay to the middle, and you can wrap it up in the bag for storage.

- Consistency of clay. Before distributing clay, wedge it a little bit (like kneading bread) to be sure it is an even and workable consistency. I have found that children may not want to touch the clay if it is too wet and sticky or too hard. If the clay is too wet, spread it out on a board for a little while, then wedge it. If it is too hard, break it apart into small pieces, put it in a plastic bag, add water, and let it sit for a few days. Then wedge it. Learning about the properties of clay can be another way to explore clay. If the clay seems too hard one day, that is a good day to practice squeezing water into the clay as well as smoothing with water.

- Storing clay. Clay must be kept in an air-tight container. If children wish to continue working on something that they have already begun, simply cover the clay and work board with a plastic bag and seal with a twist.

As you think about bringing clay into your classroom, remember to emphasize exploration using a variety of different approaches. Introduce one or two provocations at a time to generate interest and excitement. When interest begins to wane, pick up on something that one of the children is trying to introduce a new way to think about exploring clay. It is during the exploratory process that ideas, vocabulary, clay skills, and control develop. Recording children's thinking, and reading their words back to them, and encouraging them to draw their configurations leads to more interesting and in-depth work.

NOTE: Many parts of this article were taken from Cathy Weisman Topal's book, *Children, Clay and Sculpture* (Worcester, MA: Davis Publications, Inc., 1983). Other sections are excerpts from a forthcoming book, also from Davis Publications, on materials in the early childhood classroom. The author reserves the right to reproduce parts of this article.

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