Sylvia Kind, Ph.D. is an instructor and atelierista in the Department of Early Childhood Care and Education at Capilano University, 2055 Purcell Way, North Vancouver British Columbia Canada, V7J 3H5, e-mail: skind@capilanou.ca

Materials live in the world in multiple ways. They can evoke memories, narrate stories, invite actions, and communicate meanings. Materials and objects create meeting places. In early childhood education we gather around things to investigate, negotiate, converse, and share. Materials – a block of clay, pots of paint, a brush, a colourful wire, a translucent sheet of paper, a rectangular block – beckon and draw us in. Materials are not immutable, passive, or lifeless until the moment we do something to them; they participate in our early childhood projects. They live, speak, gesture, and call to us.
In early childhood contexts, encounters with materials often find their meaning within the scope of children’s development. Processes such as painting with a brush and working with charcoal are seen as activities that contribute to children’s social, physical, emotional, and creative development. Materials are described as the “bones” of curriculum. Instructions on how to organize and arrange materials are frequently provided so that children will learn the properties and functions of materials; then, as the children become more familiar with the materials, they use them to represent ideas and objects, a developmental progression from exploration to representation.

As educators, we tend to understand materials from a scientific, rational, or functional viewpoint and through predictable properties of colour, shape, density, mass,
friction, and gravity. Further, our understandings of materials are shaped by deeply rooted cultural dichotomies – animate/inanimate, active/passive, self/other, to name a few. These binaries lead us, often unconsciously, to think of ourselves as animate agents who act on passive, inanimate materials. This conception then affects how we see materials, how we engage with them, and what we create with them.

But what if the human role in shaping materials is not as central as we believe? What if materials shape us as much as we shape them? How might we experience materials differently if we acknowledge them as joint participants in our interactions with them? What happens when we choose to see materials, not as lifeless objects, but as events? How might a shift in perspective on materiality – including our own – change

*Figure 2. Sticks (author’s photo).*
how we interact with materials, with young children, and with other educators? And how might such shifts in perspective change the nature of our engagement with society and the environment?

![Figure 3. In the forest (author’s photo).](image)

We are not alone in believing that engaging with materials is urgent today; environmentalists, philosophers, feminists, and others are calling for changes to the capitalist story of materials – a story that includes the rampant accumulation of materials as well as massive amounts of trashed materials that are poisoning the planet. These critics argue for the need to develop sustainable caring relationships with the world, including with materials. Materials, they argue, can be more than a commodity for humans to use and discard.
And so we are curious, what happens we reassemble early education spaces as vibrant social-ecological environments where humans and non-humans are always in relation, where materials and young children live entangled lives, transforming each other through various experimental encounters? How might we envision life with materials in their movements and transformations? How might the rhythms and times of a day be produced then?

*Figure 4.* In the garden (author’s photo).
Experimentation

Experimentation is a complex social-affective-political phenomenon, that we might embrace in our classrooms to transform life. In early childhood education, however, experimentation tends to focus on human agency; on children's expressions and excludes the dynamic role that seemingly inanimate objects play. Yet materials, objects, places, and environments are inextricably bound to experimentation. In this regard, Gilles Deleuze (1987) helps us see encounters of materials, objects, places, and humans as part of the flow of experience. In his view, we are never separate from the world; we are made up of relations; thought creates itself through encounters. For Deleuze, thought is experimentation. Stories are told through it, forces are harnessed, roles are performed.

Experimentation opens up worlds, creates new venues for thinking and doing. It actively extends experience. It reveals what human and non-human bodies can do and produce when they encounter each other. Through experimentation we discover how something works by relations among the parts of assemblages – structures, flows, and connections.

In this way we see teaching and learning as a process of creating what Deleuze called lines of flight. By testing new and unpredictable mixes of bodies, forces, and things, experimentation invents. The process of inquiry into the unknown is embedded in the experimentation of experience with all its unpredictable connections.

Experiments are not without risk, of course. Outcomes cannot be predicted or known in advance. There is always the danger of reproducing the same, of decomposing one or more elements of the assemblage. But if we are prudent in our experimenting, we can open up worlds.
Nothing is static; the world is full of movements with different rhythms and intensities. Things move, bodies move, materials move. Life is filled with movements, motion, new becomings and emergences. Movement opens up possibilities and potentialities. Brian Massumi (2002) reminds us that it is measurement that brings movements to a still.

If materials are not just static bits of matter waiting for someone to do something to them, but are always already in the midst of becoming something else, then materials
have their own vitality and we find ourselves participants in an active world of lively materials. How might we use the movements of one material to open up possibilities within other materials, allowing objects, things, or bodies to suggest new relations through movements?

Figure 6. River-water-clay-bodies (author’s photo).

When we play with possibility, questions immediately arise: How is the movement of a material to be identified? What would material movement involve? How are possibility and potentiality invited to early childhood classrooms? One thing for sure, there is no master plan. Movement, again, is always present.
Tim Ingold (2013) describes improvisation as a rhythmic quality of working with the ways of the world. Following Deleuze and Guattari’s ideas, he views artists and makers as itinerant wayfarers. Their work is not iteration, a repetition or re-presentation of the world, but itineration as they join with the forces and flows of the world.

Figure 7. Clay-river (author’s photo).

Children, like artists and makers, follow materials as they work with them. They join with materials as they circulate, mix, and mutate. Clay blends into the river, a fire burns and leaves charcoal behind, paper is caught up by the wind, paint slides and slips over surfaces. Children join and intervene in these processes, moving with materials’ own
inclinations. Every mark, gesture, and action becomes a question: What can this material do? What can it become? How can I join its becoming?

Figure 8. Clay-hands (author’s photo).

**Time**

Once upon a time there was time. Tick tock tick tock tick tock tick tock. We tend to link time to predictable, measurable, regulated movement or change. In early childhood education classrooms, time is perceived as linear, extensive, having homogenous and equivalent units.
But what if time encompasses more than this linear static movement? Along with many theorists and artists we question the epistemic, ontological, and political status of time. Time is not a neutral medium in which life can be framed or matter constructed. It is an active, dynamic participant in framing life. Physicist Karen Barad (2007) refers to “temporality” instead of time. Time is unpredictable, a materializing force that brings newness and surprise.

*Figure 9. Paper-bodies (author’s photo).*

What if we think about time as an intensive flow? What if we conceive of time, not as discrete compartments that follow one another, but as durations? Through the
concept of duration, we can understand time as particular to bodily experiences. Perhaps time is an external state that organizes a body’s movements. Perhaps it is not discrete compartments that follow one another but an internal, unified, multiple flow of difference. Dynamic.

How does time endure in bodies? How is it experienced differently in different bodies? When we see time as becoming, as duration, we can see that it doesn’t exist as an organizational structure outside of, or regardless of, children’s experiences. As duration, time is particular to a body’s experience of it. We are provoked to engage with everything each moment entails, as artist Leah Oates (n.d.) reminds us: hundreds of small gestures, motions taken, sounds heard, words spoken, images recorded, the wonder, the many confusions, the intensity of the whole moment.

*Figure 10. Paper-foot (author’s photo).*
References


