

# Dancing Teachers Into Being With a Garden, or How to Swing or Parkour the Strict Grid of Schooling

Susan Gerofsky & Julia Ostertag

*Department of Curriculum and Pedagogy, University of British Columbia, Vancouver, British Columbia, Canada*

## Abstract

The co-authors, collaborators in garden-based teacher education, question the hegemony of grids in Western time, space and relationship structures in education, while also delving into our own complicity and entanglement with these grids. We ask: (1) Can we reject the grid in environmental education and in garden-based learning when it is an intimate part of our way of being in the world? (2) Can we be teachers who are at once within and not-within the regime of the Western Enlightenment/Modernist grid? (3) How can we take a ludic approach to the grid? Can we ‘swing’ and ‘parkour’ the strict grid of schooling? Pleasures and failures of the grid and experiences of alternatives to the grid are documented and exemplified through stories from garden-based teacher education. Considering parallels with principles of the alter-global movement and with the performative, embodied practices of swing dance, parkour and clowning, we meditate on becoming ecological teachers together beside the grid — neither within nor without it, but with a deep awareness of its presence and structure. In uncertain, unchanging times, we want to take a playful, artistic approach to the old certainties and structures, swinging and parkouring from them rather than accepting or rejecting binary formulations.

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*Swing is extreme coordination. It's a maintaining balance, equilibrium. It's about executing very difficult rhythms with a panache and a feeling in the context of very strict time. So, everything about the swing is about some guideline and some grid and the elegant way that you negotiate your way through that grid. (Marsalis, 2011)*

*Parkour remaps and even recreates urban space, creating a city parallel to the one defined by rigid striations and grids: a ludic city, a city of movement and free play within and against the city of obstacles and inhibitions (Geyh, 2009, p. 158).*

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*Address for correspondence:* Susan Gerofsky, Department of Curriculum and Pedagogy, 2125 Main Mall, University of British Columbia, Vancouver, BC, Canada V6T 1Z4.  
Email: [susan.gerofsky@ubc.ca](mailto:susan.gerofsky@ubc.ca)

## The Problematic of the Grid

It begins with noticing that teachers are in the squared-off boxes of classrooms for most (or all) of their teacher education experiences.

That seems to follow logically and seamlessly from other, previous educational experiences, from preschool through to advanced university degrees, in which teachers and learners sit inside rectilinear rooms, at tables, chairs and desks, and talk about things that are not present, within the straight-line, right-angled grid structures that are always present. Tiled floors and ceilings, windows, boards, ranks of chairs and desks, bookshelves, boxes, the corners of the room itself, all are rectilinear. And as Davis and Sumara (2003) have noted, it is not only the spatial but also the temporal and conceptual structures of schooling that are forced into a grid: the daily school timetable and yearly calendar, the curriculum, worksheets, marks sheets, report cards. Charts of causes and effects, reasons for historical events, tables of dates and figures, graphs of mathematical, scientific and social data, normal distributions, music charts, overlays to scale drawings or lined-up graphic designs — grids are everywhere in school (Figure 1).

Even at graduation, a grid of place-less individual faces marks the linear progression of a student into a teacher though the ubiquitous class portrait (Figure 2). We are a culture in love with the grid.

The implications of ‘the grid’ are deep as well as broad. As Gerofsky (2011) and Nicol and Gerofsky (2009) have written elsewhere, the overlay of a grid has been used as a powerful tool of territoriality and colonialism since the 15th century, when gridded maps were used by European colonisers as a means for staking claims on enormous territories proclaimed as ‘empty’ through the Doctrine of Discovery and *terra nullius*. Colonial dis/possession was possible through the planting of a single flag, backed up by the latest physical and psychological weaponry. This same practice continues, and is amplified, by the laying of an imagined grid over the whole earth from a network of satellites via GPS. Grids claim ownership and control of territory. Straight lines and right-angle grids on maps have been used delineate private property and national boundaries in modernity, even in ungriddable places where Indigenous peoples have lived since time immemorial, along the mutable bends of a river and the folding topologies of a range of hills.

A grid-like chart also makes claims of control and ownership of intellectual spaces. Grids divide the spaces of thought into neat, separate, watertight boxes or cubicles. These boxes are all meant to be filled (by whom? who likes a chart with empty boxes?), and what goes into each box is meant to stay put and not leak out into other boxes, or to refuse to be boxed, or to have a messy, uncertain relationship with established grid boundaries. Grids facilitate the compartmentalisation and cause-effect structuring of rational argumentation and conventionalised Western logic. The law of the excluded middle (Church, 1928), argument by *reductio ad absurdum* or proof by contradiction, taxonomies of all kinds, categorisations of everything from languages to animals, chemicals to cultures, all rely on and benefit from grid-like structures.

These rectilinear grids are the structure beneath the structure, the methodology beneath the methodology in much of the work of science and politics, education and planning, and even much of the arts and humanities. They are the ‘Eurocentric curriculum ... hidden in plain view’ (Battiste, Bell, Findlay, Findlay, & Henderson, 2005, p. 8) in the architecture, landscape architecture, and culture of containment that characterises schooling. We have designed typesetting in rows, and computer and other screens in grids of numbered pixels, with the result that regular patterns based on the square grid are easy to achieve, and irregular ones more difficult. Many academics (and others) have the habit of starting their planning and analysis by drawing a table or chart, and then populating the boxes.

Klassenspiegel										
Nr.	Anzahl der Arbeiten	sehr gut 1	gut 2	befriedigend 3	ausreichend 4	mangelhaft 5	ungenügend 6	Klassen-Durchschnitt	Eigene Zensur	Unterschrift der Eltern
1										
2										
3										
4										
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8										
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10										
11										
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15										

FIGURE 1: (Colour online) Gridded evaluations in Germany. [Photo: Susan Gerofsky].

These practices are familiar, comforting and often powerful ones. The sorting and ordering of things, people, beings, ideas, entities helps humans achieve a kind of power and control over a world that is otherwise huge, potentially threatening and by its nature inexpressible. For teachers, the sorting of curriculum, students, resources, timetables and grades into charts and tables tames the potentially overwhelming task of educating dozens or hundreds of young people, year after year. Without such grids, how to deal with the uncategorisable and ineffable presence of each child and of the complex combinations of children and their meshworks (Ingold, 2013) of relations that reach far beyond the classroom, with their needs and interests, fears and loves? Teachers do deal with complex, uncategorisable, unpredictable beings and happenings every day, even in the squarest of indoor classrooms; so the possibility of turning some of the responsibility into worksheets, attendance records and tables to memorise overlays a sense of efficiency and control over what may seem an unachievable task.



FIGURE 2: (Colour online) Gridded graduation photos, UBC Teacher Education building. [Photo: Julia Ostertag].

Are we proposing to take this comforting structure away? Is there space beyond the hegemony of the grid for other ways of teaching?

### We Ask the Questions

- Can we absolutely reject the grid (in environmental education and in garden-based learning) when we are, at least in part, implicated and entangled in it — when it is an intimate part of ourselves and our way of being in the world?
- Are there ways to be teachers and learners that are at once within and not-within the regime of the Western Enlightenment/Modernist grid?
- How can we take a ludic approach to the grid? That is to say, how can we ‘swing’ and ‘parkour’ the strict grid of schooling?

In our collaborative work as garden-based educators, specifically in teacher education, we are often attracted to the notion that teaching and learning outdoors offers an escape from the gridded classroom and constraints of schooling. However, through arts-based explorations, our intimate entanglements with gridded thinking, spaces, and movements continuously unsettle our desires to go beyond the grid. Drawing on her arts-based research, Ostertag (2015) writes of the shock of recognising her own love-hate relationship with the grid in sowing a deliberately gridded flax garden as a site-specific art installation (Figure 4). Initially intended to represent a critique of gridded indoor and outdoor classrooms such as school gardens:

*... it was not until the grid started to fall apart (when rain flattened the flax plants) that the depth of my attachments to the grid became painfully apparent [...] My desire to maintain a perfect grid overcame my initial critical standpoint and became both a source of aesthetic pleasure (heightened when I documented the site through the lens of the camera) and a source of farmer worries [...] Sure enough, heavy rains wreaked havoc on the grid and I was devastated [Figure 5] ... In fact, it was while I debated internally how far I was willing to go to retain the grid (should I tie up the plants? Stake them? Build wooden frames to hold them?) that I reminded myself that this was a research project above everything else that might be happening in the garden. And so, I took a step back and began*







FIGURE 4: (Colour online) Gridded flax plants. [Photo: Julia Ostertag].

to emphasise organic, growing forms in opposition to the ‘tough grid’ that has dominated industrial models of schooling in Tyler’s rationalist model (see Doll, 1989/2006). Our habit is to either work within binaries or against them. Coming from approaches in teacher education (and schooling) geared to the clunking, industrial forms of a



FIGURE 5: (Colour online) The grid falls apart. [Photo: Julia Ostertag].

rectilinear grid, we are tempted to go to the opposite of this, whatever that might be. Binaries like sterile/fertile, mechanical/living, hard/soft, artificial/natural and tame/wild offer us what seem to be ways out of the excessively grid-based system that dominates so much of schooling.

The grid is also intimately connected with a sensory bias toward the visual, a bias with growing importance in Western Renaissance-to-Modernist cultures since the introduction of widespread alphabetic literacy in the 16th century (McLuhan, 2011). Grid structures are organised along inherently visual lines, to the exclusion of other senses and forms of awareness. As outdoor educators, our desire is to bring multi-sensory awareness and ways of learning to consciousness, and to help learners notice sounds, smells, tastes, textures, balance, temperature, movement and other sensory impressions.

Considering multisensory awareness creates a problematic for a binary way of working in outdoor education. We do want to bring hearing, smelling, tasting, touching, moving, balancing, proprioception and other senses into awareness, but not necessarily at the cost of banning seeing as a way of knowing. Vision has its own possibilities and value, especially when it takes its place in the sensorium as complementary and synaesthetic with other sensuous experience.

Attentiveness to the particularities of vision (e.g., through sketching and painting), when in balance and harmony with smell, touch, movement and so on has great potential for learning in eolearning and outdoor education. Rejecting vision as a modality because of its past excesses is not feasible (at least, for those who are sighted) because it is part of ourselves. At times, we may wish to do things with eyes closed to help focus on the other senses but, overall, a more generative relationship with all the senses may be what we are truly wishing for.



What if that is true of many of the binaries that have offered us ways of making sense of a shift from indoors to outdoors, from excessively human-centred, controlled, artificial ways of learning to wilder, more natural ways that consider our relations in the more-than-human as deeply important? Are there senses and sense-making ways that are part of ourselves that we cannot truly reject, but might rebalance and reharmonise with ways of being and knowing suppressed by the dominant culture? Bringing this to the world of teacher education, are there ways to acknowledge our love affair with the grid and its occasional benefits, alongside and in the process of rewilding schooling and taking it outdoors?

*Beside permits a spacious agnosticism about several of the linear logics that enforce dualistic thinking: noncontradiction or the law of the excluded middle, cause versus effect, subject versus object. Its interest does not, however, depend on a fantasy of metonymically egalitarian or even pacific relations, as any child knows who's shared a bed with siblings. Beside comprises a wide range of desiring, identifying, representing, repelling, paralleling, differentiating, rivaling, leaning, twisting, mimicking, withdrawing, attracting, aggressing, warping, and other relations. (Sedgwick, 2003, p. 8)*

### **Becoming a Teacher Neither (or Both) Inside Nor Outside the Grid?**

The authors' work in garden-based education is with teacher candidates who are becoming teachers and making curriculum in and with the living world of the garden. Are there ways that we can do this work beside the spatial, temporal and social grids of schooling?

Ostertag (2015) tells a story of student teachers literally performing freedom and control in the gridded flax garden (Figure 3), in a movement piece they titled 'Conflict between teacher control and student freedom':

*The five students positioned themselves in the installation; four crouched behind student desks, and one teacher with her back to the students at the larger teacher's desk in the front of the classroom. Slowly, fluidly, and led by one particularly impish student, the crouched students began to rise from their desks, swaying gently but quickly huddling back down every time the teacher turned around. Finally, the teacher moved through the desks, pruning the students at the desks, bringing them back down and controlling their movements. However, one student continued to move more than the others, and gradually they all began to sway, arms wide open, arms touching and reaching like tree branches in a breeze, moving throughout the classroom space [...] The scene ended when she looked at her watch [...] and announced (in mime) the end of class. The entire performance was silent. (pp. 165–166)*

The somewhat uncanny encounter with the strictures of the gridded, pruned garden installation was unsettling for these new teachers in bringing an awareness of the ways we respond to and are entangled within the metaphorical and material grids of schooling:

*As many of the participants at the research event commented, 'All the metaphors are popping out.' One way in which a number of participants responded to the unsettling theme of freedom and constraint was to gently braid the loose strands of flax, which were 'pushing out of that confinement.' Other responses to the installation were: 'I really enjoyed visiting the garden.' 'I was thinking that the "desks" looked really overgrown and wild. It reminded me of how we try to "tame"*



*students into their desks in a regular classroom however they often are a little unruly.’ (Ostertag, 2015, pp. 169–170)*

These student teachers, in the presence of the living (unruly) plants and strictly enforced tidy lines and grids of the garden installation experience ‘beside-ness’, of ‘being beside ourselves’ (Butler, 2005; Rotman, 2008). As new teachers, we desire in some way to command attention and control learners (for the purposes of learning, safety, order) — and at the same time, we recognise the illegitimacy of usurping the freedom of others. We are simultaneously within and beside ourselves and the persona of ‘teacher’ we are in the process of adopting. Rather than conforming to this persona, what other ways of being teachers might be possible? Can we dance or daydream teachers into being with a garden?

### **Side-Stepping the Tough Grid of Time**

So much of teachers’ work in schools is regulated by ‘when she looked at her watch’ — the tyranny of the classroom clock regulating the beginnings and ends of lessons, exams, school days and years with the strict grid of chronos. Much of what we teach and learn in teacher education is about time management as part of classroom management: regimes of control of the living within the grid of the mechanical. How then might one take a step beside oneself and one’s love/hate of that grid to experience kairos, the ‘felt time’ that is not of the clock, the time when time stills to allow an arrow to be let loose and fly, or a shuttle to fly through the shed of a loom (Onians, 1951)? Do new teachers learn to open the time-space of dreaming as well as that of logical reasoning with their students?

Gerofsky experienced this shared side-step out of clock time and into the temporally fluid kairos of dreamtime with a group of new teachers in the garden. The artists of the feminist Gestare Art Collective collaborated with student teachers and teacher educators in creating a Nap-In in the learning garden. Interestingly, Gestare artists describe these participatory arts-based inquiry events as a stepping outside of the self, of place and of time:

*Combining napping and walking the labyrinth with the reflective creative process of drawing, writing and sewing in this interactive art experience is intended to bring to light the collective awareness(es) of community. The different aspects of the artworking hold the potential to assist participants to dream and witness themselves co-poetically with / as the Other. In these processes, participants have the opportunity to step beyond personal boundaries, to re-attune with themselves and others. This work is part of a socially engaged art practice that integrates aesthetics with the ethical and the political. (Gestare, n.d.)*

The Gestare artists arrived when the garden (and the people in it) were drowsy in the early afternoon summer heat. They brought a Dream Scroll from earlier Nap-Ins, and we began by connecting in a circle with the scroll and talking about collective napping, dreaming, and bringing forth what we dreamed to add to a river of dreams stitched in cloth, ribbons and ink. Then we all lay down on mats in the garden for a 20-minute nap, to the slow heartbeat of rhythm from a frame drum.

It was hard to know whether we were actually sleeping, or just drifting off, or in some kind of trance-like state, but dreams and images did come. When the drumbeat changed, signalling a time to stretch and rise, we slowly came back to the world of the garden, and without talking, found cloth and thread, pine cones and ribbon, pens and

needles, and began to stitch and draw those images that haunted our resting minds. One of the new teachers wrote:

*It gave us an opportunity to engage in reflective practice, by taking moments in the day to pause and step away from the hectic daily routines that most of us experience. Spending time sewing and expressing our ideas for the dream scroll was a refreshing way to engage with a cross-curricular activity in the garden, combining our artistic expressions with the outdoor environment. It was also comforting to share this experience in comfortable silence together. (Orchard Garden, June 17, 2016)*

We completed our dream-scrap and added them to the new Dream Scroll we were creating. We finished by walking in silence the red-thread labyrinth laid out through the garden, and then gathered in a circle to hear one another's moving dreams, and to hang up the Dream Scroll, in a symbolic releasing of our dreams into the world.

Napping together, dreaming together and walking in companionable silence together are not the typical activities of teachers in a classroom, as we all know. Teaching is often thought of as synonymous with talking, explaining and regulating. It is not easy for everyone to give up that conscious control, even for a few minutes, and to give oneself over to the dreamy depths of an unpredictable and not-fully-conscious or in-control state. By taking this on, in our role as teachers, and with the gestational artistic guidance of Gestare, we were able to move into a memorable place of felt time, where the garden spoke to us and we spoke to ourselves, to 'witness ourselves co-poetically with/as the Other'.

### **Dancing Teachers Into Being With a Garden**

The idea of 'dancing entities into being' arises from a project (Gerofsky, Knoll, & Forren, 2017; Knoll, Landry, Taylor, Carreiro, & Gerofsky, 2015) to dance rope, braid and weaving into being, as part of an exploration of embodied, arts-based mathematics education (Figure 6). The project experiments with mathematical awareness of structures through making rope, braid and twill weaving at a variety of scales — from small-scale, hand-held, individually controlled weaving, to large-scale collaboratively controlled dances by a group of people who produce rope, braid or weaving as a byproduct of the group's coordinated whole body movements. The project aims to make sense of the kinds of mathematical noticing and awareness that come with working at different scales and qualities of embodied engagement.

Rope and braid are distinctive forms that can be made out of many kinds of materials (e.g., cloth, thread or ribbon, leaves and grasses, steel cable, hair or DNA strands). These forms have characteristic patterns that are shared across different materials, and which give rope and braid aspects of their strength and beauty.

We could think of these characteristic patterns as akin to patterns we experiment with and try out in the midst of professional education, including teacher education. We become teachers together by playing with, altering, customising, and eventually adopting, to a greater or lesser extent, 'teacherly' patterns of being and working.

Teacher education can be undertaken in many ways, and there is an extensive literature on the practices and ethics of teacher education in general (e.g., Britzman, 2003; Cochran-Smith & Zeichner, 2009; Korthagen, Kessels, Koster, Lagerwerf, & Wubbels, 2001; Ladson-Billings, 2001) and of the education of teachers for environmental and



FIGURE 6: (Colour online) Teacher candidates experiment with dancing an 8-strand braid into being. [Photo: Susan Gerofsky].

sustainability education (e.g., Mackenzie, 2006; Miles, Harrison, & Cutter, 2006; Ostertag, Gerofsky, & Scott, 2016; Tillbury, 1992; Powers, 2004).

We are particularly interested in fully embodied, immersive, collaborative teacher education for environmental sustainability (similar to those described in Blenkinsop, 2015; Kentel & Karrow, 2010) and in conceiving of these as ‘dancing teachers into being with a garden’. We use the preposition ‘with’ rather than ‘in’ as we think of the garden (or other outdoor place where everything is alive — the forest, beach, park, mountainside, prairie) as having agency as a living co-teacher, rather than as an inert ‘background setting’ or indoor-classroom-moved-outside.

‘Dancing teachers into being with a garden’ offers a very different model from the industrial imagery of a ‘teacher training institution’. Can this image offer an alternative way of approaching the grid that is in us and all around us — a way of being beside, around, under, over and through the tough grid of schooling as teachers?

### Swing Dancing and Parkouring the Grid

Returning to the Marsalis (2011) and Geyh (2009) quotes at the beginning of this article, we would like to consider the artistic and physical practices of playing swing music, swing dancing and doing parkour as ways to open up spaces to be at once within and without the grid.

Marsalis (2011), in an interview about being a jazz musician, points out that it is impossible to play swing music without being in interplay with the rigid grid of a fixed tempo and beat. Swing music (and swing dance as well) leans into and out from the



beat, and plays with the beat. Swing is all about syncopation, elasticity, graceful and daring play with balance and gravity. Swing plays the grid with courage, mischief, and joy, swinging away from, past, and back in sync with the beat. Without the presence of a strict beat, there could be no syncopation. The grid of a rigid tempo is treated in swing as something to balance on, swing from, and use as a way to brace complex rhythms with style. (For a lovely example of contemporary swing dance and music jam, see <<https://www.youtube.com/watch?v=gisafTmbVd8&list=RDgisafTmbVd8#t=82>>).

For teachers coping with context of the ‘very strict time’ and space of schooling, and of strictly gridded and categorised curriculum, this knowledge of the nature of swing offers a different way of thinking of the grid, one that neither rejects nor accepts the grid, but ‘swings’ it. Like a child swinging upside-down and rightside-up through the cubic metal grids of old-fashioned playground equipment (once known as ‘jungle gyms’), can we as teachers and teacher-educators find generative ways to balance, create resistance to, use and play with the grids we find ourselves negotiating?

A similar image comes from the contemporary practice of parkour, a way of moving fluidly through, around, over and under urban spaces in ways that subverts the intended uses of structures (like roads, stairways, balconies and railings), to find the quickest and most elegant, efficient pathways. Parkour practitioners use vaulting, running, rolling, jumping and other practised and improvised movements to traverse city spaces with grace and speed.

Parkour remakes the city as a playground, turning intended barriers into handholds, running crosswise on one-way streets, and treating static platforms as launching pads into unexpected terrains. As de Freitas (2011) notes, school parkour is a particularly prolific form of parkour, one that is often met with pathologising disapproval that boxes in these creative movements as anti- social or anti-authoritarian. Instead, de Freitas (2011) suggests:

*... that we consider parkour as a form of student resistance that inserts the body back into school architecture. I hope to open a space for making sense of parkour as not simply (or only) reactionary to an oppressive power realized within the built environment, but rather as a subversive practice that transforms the built environment. (p. 210)*

The freedom, panache and wild skill of parkour has something in it of the anarchic and playful skills of clowning and physical theatre — a way to ‘swing’ through the rigid structures that define a particular society, making those structures visible and at the same time exploring their unintended affordances, spaces and possibilities. As with clowning, parkour foregoes a reverential attitude towards hierarchies, systems and structures, but also knows those structures with a detailed intimacy, the better to balance, swing and play with them. The act of parkour or clowning reveals the very nature of the (usually unseen or unnoticed) grid, while critiquing it by refusing to take it too seriously on its own terms.

## **Resonances With Alter-Global Principles**

The alter-global movement offers another similar take on a playful approach to societal structures that is at once both within and without the grid.

Alter-globalisation is a movement that is neither anti-globalisation nor pro-globalisation in its neoliberal form (i.e., it does not set up a binary between globalisation and its opposite). Rather, it is a movement that dares to imagine globalisation and global connections among people differently. Its slogan is ‘Another world is possible’ within this world — which could well be adapted to the practice of swing music

and dance ('Another rhythm is possible within this rhythm') or of parkour ('Another city is possible within this city'). The alter-global movement is exemplified by protests against the World Trade Organization, the Occupy movement, and the idea that people can 'think globally, act locally'.

Pleyers (2010) defines principles of the alter-global movement as:

- structures that are intergenerational, international and diverse;
- distributed leadership model;
- embracing diffuse, experimental, playful experiential solutions;
- performative and artistic;
- honouring knowledge, expertise, facts within/across disciplines;
- radically democratic and collaborative;
- offering human-scale, life-giving, communitarian experiences counter to isolating narratives of neoliberalism;
- breaking down barriers through inclusive, participatory practices;
- living a blend of actual and virtual worlds as online and face-to-face networks flow seamlessly into one another.

These alter-global principles are not opposed to all the structures of society (e.g., they respect scientific and other forms of knowledge and expertise), but they do not take rigid social hierarchies seriously (as these do not allow for radically democratic and collaborative relationships), and they take a playful, arts-based, performative approach to society and culture. In many ways, these alter-global principles work well with the ludic approach of swing dancing and parkouring the grid. The categories, boxes and rectilinear structures that form part of us as well as our societies are noticed, learned and played with skill and humour, to reveal their affordances and limitations and diffuse/defuse their power.

### **Potential for a Theoretical Basis for New Ways to Become Ecological Teachers**

As we move deeper into unprecedented times of climate change and the post-human, how might we become teachers differently? Through identification or educational acculturation, we may inherit and bear within ourselves the Modernist/Enlightenment grid, and walk into uncertainty. Things are changing fast, and no one knows what the future will bring for our students as they mature.

Is our best strategy to find balance in a dynamic relationship of shifting imbalances, rather than seeking an impossible stasis? Can we take a playful, artistic approach to the old certainties and structures, swinging and parkouring from them rather than accepting or rejecting binary formulations? Are we capable of working across generations and differences, skillfully navigating the landscape in unexpected ways, to find delight, life-giving experiences, knowledge, participation and community as we traverse the school and city sideways and nap alongside the strict tempo of clock time?

How can (new) teachers do this? Will all teachers be able to take this up, or only those who are particularly secure in themselves and within their human and more-than-human communities – those who are fanciful and imaginative, committed to finding their way round and about the conformist grid that schooling may offer?

Even in school gardens, we may parkour traditions of rectilinear garden beds as an efficient, industrial way of organising plants and crops. Other kinds of garden beds and geometries exist: spirals, mounds, keyhole beds, polycultures of all descriptions ... Are we able to choose, sometimes one, sometimes another, in ways that support us in



FIGURE 7: (Colour online) Dancing on a hyperboloid garden gate. [Photo: Susan Gerofsky].

our most creative and thoughtful teaching? In short, are we able to dance teachers into being with a garden (see [Figure 7](#))?

*Keywords:* teacher education, garden-based learning, environmental education, grid, Cartesian, ludic, alter-global, embodied, performative, arts-based, swing, parkour



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### Author Biographies

**Dr Susan Gerofsky** brings experience in a number of fields to bear in an innovative and interdisciplinary approach to curriculum theory, and to mathematics education and environmental education in particular. She holds degrees in languages and linguistics as well as mathematics education, and worked for 12 years in film production, 8 years in adult education (including workplace and labour education), and 8 years as a high school teacher with the Vancouver School Board. Dr Gerofsky has been involved in interdisciplinary research and teaching involving mathematics education, applied linguistics, film and environmental education.

**Dr Julia Ostertag** completed her PhD in 2015 at the University of British Columbia where she engaged in arts-based research with The UBC Orchard Garden, a teaching and learning garden on campus. Her interests are in arts-based research, environmental education, food and agricultural justice, school ground greening and garden-

ing, settler colonialism and social justice, feminism, alternative research methodologies, and activism in academia. Julia has two children and currently lives in Gatineau, Quebec where she teaches online courses and continues writing and researching.