

Rhizomatic mapping: Spaces for learning in higher education

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Philosopher Gilles Deleuze and psychoanalyst Félix Guattari's figuration of the rhizome describes structures that are non-hierarchical and open-ended. Rhizomatic analyses are increasingly being adopted in educational research to challenge traditional power structures, give voice to those previously unheard, and open issues in messy but authentic ways. Rhizomatic mapping involves depicting a number of points that elaborate, shape and disrupt each other, encouraging readers to draw their own interconnecting routes or separating chasms between them. In this paper, I adopt rhizomatic mapping techniques to open up issues of learning spaces in one Australian university, in order to problematise the mass university's approaches to student learning. In this mapping, I give voice to two of the least powerful groups in the university, first-year students and sessional tutors, alongside educational academics and administrators.

Keywords: ethnography; first-year experience; qualitative research; reflective practice; student experience

The recent burgeoning of rhizomatic analysis, arising from the work of French philosopher Gilles Deleuze and his colleague, psychoanalyst Félix Guattari, has encompassed many academic fields, including the health sciences, social sciences and education. Those who advocate rhizomatic structures in scholarly texts (e.g. Grosz, 1993; Kamberelis, 2004; O'Riley, 2003) emphasise their capacity to disrupt power structures, to include the voices of the previously unheard, and to open analyses in messy, incomplete ways that are both more authentic and more satisfying than traditional closed structures. Feminist and educator Patti Lather (1997, p. 299) is one of a growing group of researchers who value this 'rhizomatics of proliferation, crossings, and overlaps'.

In this paper I argue for the value of rhizomatic analysis in higher education research, demonstrating its capacities to open up issues of learning spaces in one university in order to disrupt the institution's position on physical spaces; and to give voice to two often-unheard groups of participants in the learning experience: first-year students and sessional tutors.

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Rhizomatic analysis has become increasingly valued in educational research in the past two decades (e.g. Honan, 2004, 2007; Sellers & Gough, 2010; St Pierre, 1997a, 1997b, 2000). Indeed, Zelia Gregoriou suggests that Deleuze has opened possibilities for ‘the reclaim of philosophy of education from its “illicit”² nuptials with the social sciences’ (2004, p. 234). She argues that Deleuze and Guattari’s work enables a ‘*minor philosophy of education*’ [her emphasis]. In an appropriately Deleuzian term, she invokes a musical image (‘in a minor key’), and depicts a thinking liberated from being ‘haunted by the big figures of philosophy’s fathers’, so that it can encompass ideas and approaches from a range of disciplines without the fear of being hijacked from the field of education.

Rhizomatic mapping

Deleuze and Guattari (1987) distinguish rhizomes from trees, in that their roots are transversal, with all nodes connecting to all other nodes in a non-hierarchical structure that is unlimited in all directions. They write of human ‘becomings’ rather than ‘beings’, who relate to the world by accumulating rather than defining: ‘The tree imposes the verb “to be,” but the fabric of the rhizome is the conjunction, “and ... and ... and ...” This conjunction carries enough force to shake and uproot the verb “to be”’ (p. 25). Such accumulation allows rhizomes to prosper where trees are threatened: when individual roots are broken or damaged, rhizomes continue to spread from alternative nodes (p. 9), rather than being confined to the single tap roots of traditional western ways of thinking: ‘[Rhizomes] affirm what is excluded from western thought and reintroduce reality as dynamic, heterogeneous, and nondichotomous ... they propagate, displace, join, circle back, fold’ (O’Riley, 2003, p. 27).

In *A Thousand Plateaus*, Deleuze and Guattari liberate writers from having to create single meanings: ‘Writing has nothing to do with signifying. It has to do with surveying, mapping, even realms that are yet to come’ (1987, pp. 5–6). The images of surveying and map-making link with the phrase ‘and ... and ... and ...’, suggesting the action of depicting a range of points and leaving readers to see the routes between them, while ‘realms that are yet to come’ invites writers to find new ways of doing this. Deleuze and Guattari’s refusal to specify the form the writerly act should take has led to a proliferation of rhizomatic techniques. All of them transfer meaning-making power to readers, challenging them to shape and reshape their understandings as they read, and to interweave nodes from their daily experience with nodes they see within the text itself:

There are, you see, two ways of reading a book: you either see it as a box with something inside and start looking for what it signifies, and then if you’re even more perverse or

depraved you set off after signifiers.... Or there's the other way: you see the book as a little non-signifying machine, and the only question is "Does it work, and how does it work?" How does it work for you? If it doesn't work, if nothing comes through for you, you try another book. The second way of reading is intensive: something comes through or it doesn't. There's nothing to explain, nothing to understand, nothing to interpret. It's like plugging in to an electric circuit. (Deleuze, 1995, p. 8)

Both the image of map-making and that of plugging into an electric circuit encourage writers and readers of rhizomatic analyses to approach texts in a playful spirit, allowing the sparks and energy bolts to flow in the electric circuit; or mapping new territories, and opening routes between places previously inaccessible to each other.

A rhizomatic analysis of learning spaces

For the past twelve years I have worked at Curtin University in Perth, coordinating first-year Communications units (compulsory, credit-bearing units, known as courses or programs in some other universities, and comprising one-quarter of a full-time semester's load) for students in the first semester of Built Environment and Science degrees. This has involved coordinating teams of up to ten sessional tutors, often postgraduate students, in order to teach up to 400 students a semester. For the last three of these years I have also undertaken ethnographic research with first-year students and sessional tutors. I have listened to the voices of the students and tutors, those with the least power in the institution; explored the possibilities of rhizomatic mapping to give expression to these voices; and wondered, with Deleuze, about those who begin to challenge their position in the hierarchy: 'Can one already glimpse the outlines of these future forms of resistance, capable of standing up to marketing's blandishments?' (Deleuze, 1995, p. 182).

Three strands have arisen in my thinking about learning spaces: how first-year students struggle to participate in creating learning spaces; how some of these students resist the market-driven momentum to gain a certificate with the greatest possible efficiency; and how sessional tutors, poorly paid and with no guarantees of ongoing work, position themselves to help establish spaces in which their students learn. I will fold all three of these strands into this rhizomatic mapping, by working together a series of nodes, suggesting how they might support, challenge and disrupt each other.

This rhizomatic analysis should be read with a caveat, however (or should not be read thus, if the reader chooses): the connections I make between places on the maps, the electric circuits I plug into, are mine, and I strive not to have them control the ways any reader sees the rhizome I build. The multiplicity of voices I speak with, as teacher, learner, researcher, colleague, and member of an institution, are of equal value in this mapping. My temptation is

strong to avoid the researcher voice, so long privileged in traditional research, in order to give hearing to the other voices. And yet I seek ways to retain this voice, in parallel with the others, to create the richest possible chorus, always mindful of the dangers of that voice stipulating the ‘correct’ interpretation:

When a philosopher of education explains ‘Deleuze’, for example, she communicates the command to make some sense of him, to recognize in his writing concepts that facilitate our understanding of the educational experience or even command the understanding of ourselves as educators or philosophers. Teachers and students agonize to find whether an idea (e.g., ‘rhizome’, ‘minoritarianism’, ‘event’, to cite some of the ideas we will encounter later) is just or correct. (Gregoriou, 2004, p. 235)

In my hesitation about presenting my research with students and tutors in the voice of the research authority, I bear in mind Ian Buchanan’s concern over the position of Luce Giard in editing the works of Michel de Certeau. As his collaborator for many years, claims Buchanan, Giard’s notes on de Certeau’s work do more to limit than to open up a reading of this work, ‘creating a luminous “one who knows”: a preferred reader standing in the place of an implied author, displacing the implied reader altogether and therefore absorbing what limited freedom the implied reader once had’ (Buchanan, 2000, p. 4). I seek to avoid this limitation by drawing attention to my role as map-maker, while challenging readers to make alternative connections, to plug into their own electric circuits.

The limitations of paper-based publication reinforce my writerly concerns. As I search for ways to map the rhizomes that allow connections for readers rather than limiting them, I recall Deleuze and Guattari’s vision:

The ideal for a book would be to lay everything out on a plane of exteriority ... on a single page, the same sheet: lived events, historical determinations, concepts, individuals, groups, social formations ... a broken chain of affects and variable speeds, with accelerations and transformations, always in relation with the outside. (1987, p. 9)

Within the publication constraints of a journal, I can only lay out the nodes one after the other. I have numbered these nodes not to rank or structure them, but to label them succinctly, so that I can suggest where pathways might connect and chasms separate them on the rhizomatic map.

In these contexts, and within these limitations, therefore, I seek to ‘work [the rhizome] for all it’s worth’ (St Pierre, 1997a, p. 281).

Node 1: Properties, Curtin University, *Curtin Physical Facilities Plan, 2007–2116:*

Introduction

The choice of node to begin this mapping is arbitrary: rhizomes have no beginning or end, but are ‘always in the middle, between things, interbeing, *intermezzo*’ (Deleuze & Guattari, 1987, p. 25). Elizabeth St Pierre (1997b, p. 176), who identifies with poststructural approaches to educational research, insists on the vital role of rhizomes in a world in which we are all ‘becomings’: ‘[W]e must learn to live in the middle of things, in the tension of conflict and confusion and possibility; and we must become adept at making do with the messiness of that condition and at finding agency within’.

In my search for some form of messy agency, I make a choice: I start with an excerpt from the most recent ten-year plan published on its website by Properties, the group responsible for managing the Curtin University physical environment. In this way I seek to establish the institutional voice which the later nodes disrupt.

Curtin aims to become a university that is amongst the leaders internationally in selected areas of research, as well as ranking in the top ten research institutions nationally. Concurrently it will be known for providing a top class learning environment for both undergraduate and post graduate students drawn from domestic and international markets.

In order to achieve these University-wide goals, the physical facilities provided must be of a high standard and fit-for-purpose for both research and learning activities, while being financially and environmentally sustainable. ...

The contribution that the built environment makes to both student and staff satisfaction with their university experience in an intensely competitive environment can not be underestimated. The provision of facilities that encourage informal exchange and dialogue such as cafés, student project rooms, study clusters within the library and other such similar uses of space are all important to the enhancement of the quality of a student’s learning experience, as are facilities for accommodation, sport, and recreation. Survey responses demonstrate that an attractive landscaped setting such as Curtin’s Bentley Campus is also strongly conducive to student and staff satisfaction. As such the campus environment is a significant asset that can be leveraged for the future.

Curtin’s Enabling Plan for Physical Facilities provides support to the strategic directions of the University, guiding capital development decisions in a time of dynamic change. The Physical Facilities Plan is designed, along with the other Enabling Plans, to operationalise the University’s Strategic Plan and links to other Plans.

In this node Curtin Properties makes brief mention of the importance of space to students’ learning experience; however, the majority of the discussion can be seen in business terms, with the focus on ‘domestic and international markets’, the campus as an ‘asset that can be leveraged for the future’, and the aim to ‘operationalise the University’s Strategic Plan’.

Other Curtin documents emphasise the institution’s commitment to teaching and learning; however, the sessional tutors in Node 6 disrupt this emphasis and underline the marketing focus in Node 1 by critiquing the university’s commitment to students’ easy and rapid graduation, rather than to their learning.

Node 2: Edward Casey and Yi Fu Tuan on embodied spaces

In this node, my academic voice synthesises concepts of embodied space from the works of philosopher Edward Casey and geographer Yi Fu Tuan. I choose to introduce this section as a node rather than blending it in with my ongoing analysis in order to place my academic voice alongside my reflective voice (Nodes 3 and 8), and the voices of students and colleagues in Nodes 4 to 6: they are equally valid and equally open to inter-connection.

Edward Casey (2007, p. 510) sees human engagement as necessary to turn a 'site' into a 'place'. He challenges the suggestion for an atlas of world history, for example: by the time the atlas was published, he argues, the places depicted would be mere sites because humans would no longer be engaged there. Mapping the land according to Casey (2005, p.169) involves three stages: taking in, existing with and mapping out. The middle, engagement stage is essential if one is to inhabit the learning place. 'The guiding principle is the lived sense of how it feels to be part of that region and in extreme proximity to it, relating to it in diachronic density – what it is like to have "landed" or to have "sea legs"'(2005, p. 170):

The lived body is what affords a 'feel' for a given landscape, telling us how it is to be there, how it is to know one's way around it. Such a body is at once the organ and the vehicle of the painted or constructed map. (Casey, 2005, p. xvii)

In an echo of Casey, Yi Fu Tuan distinguishes 'location' from 'place': '[I]f we think of space as that which allows movement, then place is pause; each pause in movement makes it possible for location to be transformed into place' (Tuan 1997, p.6). Tuan too emphasises that coming to 'feel' a place is a slow process, and involves embodiment over time:

The visual quality of an environment is quickly tallied if one has an artist's eye. But the 'feel' of a place takes longer to acquire. It is made up of experiences, mostly fleeting and undramatic, repeated day after day and over the span of years ... The feel of a place is registered in one's muscles and bones. (Tuan, 1997, pp. 183–4)

This node begins the connection – extended throughout the mapping – between space and time. Node 2's concept that people embody place over an extended period of time disrupts the learning concepts implied in much official documentation (such as Node 1), as well as the current learning practices, of western mass-market tertiary educational institutions. In one of the departments at Curtin, for example, a decision has been taken to timetable first-year classes into a maximum of three days a week in order to allow full-time students to work for at least two full weekdays (for many, this is in addition to weekends). This disjuncture is further explored in the sessional tutors' conversation about students who seek more than accreditation from their studies, Node 6. And ... and ... and ...

Node 3: My journal entries, in response to Casey and Tuan

I have kept a reflective journal throughout my ethnographic research with first-year students and sessional tutors. In much of it, I recount and reflect on small incidents that occur as I teach and coordinate Communications units.

13 April 2011: Teachers can help students begin to ‘exist with’ place (Casey, 2005). But the current approach of modularisation and semester-length units means that students spend shorter periods in each room on campus (and, of course, shorter times on campus – [McInnis, James, & McNaught, 1995]), and so they don’t feel themselves into specific learning spaces. The groups I teach vary in the ways they relate to buildings. The Built Environment students, who have a home building, begin to engage in it during the first semester. Their resource centre is there, and their design studios, as well as lecture theatres and classrooms, staff offices and a large open display area that is constantly full of student work. Some of my students this semester bemoan that for our unit they’re forced to leave this building, but then others enjoy the change. Many of the science students have no specific home building, and move from one end of campus to the other between classes – they’re much slower in feeling that they belong. Think of Curtin’s latest ad campaign: ‘You belong at Curtin’ – the senior admin clearly ‘get’ that they need to promote students’ sense of belonging but, with the dispersed teaching rooms and the tightness of space that forces all rooms to be filled to maximum efficiency, it’s difficult to do.

So a major question for the Communications team: how to help students begin to exist with the physical learning places we are allocated – to develop them into places rather than sites? Encouraging student engagement must be central, and foregrounding the learning/language processes they are developing – developing meta-awareness through reflective thinking, which we are committed to introducing from Week 1.

Before class yesterday (Week 6 of her first semester), a student bemoaned that she had an hour’s break between morning lectures: she just had time to drive home after one lecture before she had to drive back for the next one. She still regards campus as a site/location where lectures are given, rather than as a place she is starting to embody. She’s in the pre-stages of becoming-student (Deleuze & Guattari) – or maybe this is indeed Stage 1. Would be interesting to research how much attrition rates relate to students’ feeling ‘out of place’. Many Curtin teachers fear that the university’s plans to introduce hourly rates for student parking in 2012 will further reduce the time students spend on campus, and thus limit their engagement in their learning.

13 May 2012: Today I received an email from a student explaining why he was withdrawing from an online unit I coordinate. Although he’s reached Week 11 of the semester, he feels he can’t continue because he’s been doing minimal work during the semester, and now it’s catching up with him. He explained that he’s studying five units [four is a full-time load] while holding down a full-time job. Whose responsibility is this? The university has set up an online version of the course to enable students working week days to study in their free time, and complete their degrees as quickly as possible. Is there a duty of care to make sure students don’t overload to this extent? Or is the university providing a service to help students graduate as quickly as possible, and to support industries who need new graduates? In this mining boom, is the university exercising entrepreneurship in meeting the demands of workers and employers? A proportion of students – more in some courses than in others – are overloaded, and have little choice but to treat university studies as a vehicle for certification, making only enough effort as is required to pass. A significant number of these students withdraw from some units very late in semester in order to pass the others, forfeiting all fees for the abandoned units.

Such blending of narrative with reflection and analysis is typical of rhizomatic mapping. Traditional written forms are ruptured, with academic analysis ‘folding, unfolding, refolding’ (Deleuze, 1993, p. 137) with an almost limitless range of forms, including narrative, poetry, transcripts of conversations and interviews, reflective writing, and graphic texts. Eileen Honan (2007) folds excerpts from syllabus documents into her own poetry and

stories from teachers in order to deconstruct the official documents. St Pierre (1997b) incorporates sections from her dream diary in order to challenge the types of data considered acceptable for educational research. Ian Stronach plays with words (*writing/riting; spoor/spoof/spook*), and includes the responses of his reviewers as asides within his text in order to push the boundaries of action research and to ‘make light of the serious’ (2002, p. 291).

Node 4: Conversation between Jane Grellier and sessional tutors Sandra Adams, James Barclay and Joy Scott, 23 August 2011

In this node I incorporate parts of a conversation about student learning between myself and a group of the sessional teachers from the Communications unit I coordinate, which took place as part of my ongoing ethnographic research. Sessional tutors are among the least powerful members of any university community: they have neither security of position nor voice in the organisation, despite their proportion in Australian universities increasing significantly in recent decades³. Because of its capacity to place the voices of the least powerful against those of the powerful, rhizomatic analysis has been adopted frequently in such situations of significant power imbalance (e.g. Goodley, 2007; Le Grange, 2007). Le Grange, for example, contends that the non-hierarchical nature of the rhizome is particularly important in indigenous education in South Africa, where western-trained researchers work alongside indigenous community workers to create new knowledges that are more than the interfolded parts. This must involve ‘deterritorialisation’ (Deleuze & Guattari, 1987), in which the western dichotomies, hierarchies and power structures are broken down, so that participants can work with each other as equals (Le Grange, 2007). Le Grange asserts the value of multiple voices: while educational theory is arborescent, ‘multiplicities are rhizomatic’ (2007, p. 8).

Jane: So do you see it as one of your responsibilities to actually develop students’ independent learning? Is that something that’s part of the space?

Sandra: Absolutely, because that’s part of being a university student ...

James: And learning from each other, that’s part of the academy. And relying on each other, to test their knowledge against other people, and to disrupt each other’s knowledge, and learn new things.

Joy: Yes, not just testing it against your own as the teacher, but against each other ...

Sandra: Well I think a lot of it is disassembling the myth of who the teacher is that they learn all through school. Like, it’s not the god voice. I’m here to ask the questions, not here to provide the answers, and I think that that’s a really rude awakening for a lot of the students ...

Sandra: I was thinking about the differences between [two groups of students] so that’s differences between first semester and second semester, and there is a pretty significant difference in terms of how willing they are to be participants or being partially responsible for what occurs in the space ...

Joy: Well, it's about building your networks for the next three or four years, isn't it? ... That's what keeps them at uni, isn't it, that connection? Because if they don't have it, it's easy to drop out.
Jane: So you see that the space we're building is actually a supportive space, that we're building networks, in order to keep them here?
Joy: Sustainable practice ...

In this part of their conversation, the tutors talk of working closely in small class groups to challenge the students to think for themselves, as well as to build the networks that will be important for their future success and satisfaction; and of feeling that most students take several months to achieve this. In this focus they are in line with the university's nine graduate attributes, one of which is lifelong learning. They also map to Node 2, the concept that embodying a (learning) place is a slow process.

The inclusiveness the tutors discuss is valued not just in educational research, but in classrooms themselves. Advocates of rhizomes see their potential to allow, enhance and celebrate differences among students, rather than succumbing to traditional education's impetus towards standardisation, where '[d]ifference in education is not seen as something to celebrate and animate; rather, what is not viewed as the norm is seen as negative, something to vanquish or subordinate, contain, control by reducing difference to the Same' (O'Riley, 2003, p. 26). In an echo of Deleuze and Guattari's maps-not-significations, Amorim and Ryan (2005, p. 585) endorse the value of differences, suggesting that the teacher's role is to 'accompany and support learners along their own path', rather than pre-setting the path to be followed, and that teachers should see the paths not taken as 'future rhizomatic connections', rather than as lessons not learned.

In the second part of their conversation (Node 6), they challenge the university's commitment to deep student engagement, suggesting that this runs counter to the market-driven impetus to provide easy means of certification to as many students as possible. And ... and ... and ...

Node 5: Student's voice on place

Marie Phillips⁴, interview with Jane Grellier on 18 May 2009

At the time of this interview, Marie was studying first-year sciences. Her response to the campus environment is particularly interesting because she experienced one year as a part-time student followed by a semester full-time, and distinguishes clearly between them. I include her words in this map in order to insist on the validity of students' understandings of learning spaces alongside those of teachers, academics and the university administration.

Marie: I'm not sure what Curtin should do to make me feel more a part of the Curtin community. I think there's a lot of things already in place, and the more you're here, the more you find out about different things ... There's flyers all over the place, and you never realise they're there until one day you *aren't* rushing off to a class, and you actually look and go 'oh, there's a flyer for something.' ... I don't know how you can inform people, I think it's just ... maybe the emails that are sent out, if they told you certain things ...

[Jane: You think that would have got you involved more quickly, if you had heard more about these things by student email?]

Marie: Well, probably a bit. But also feeling like, 'Yeah, I know my way around Curtin. This is my place.'

[Jane: So this feeling of 'this is my place', it just takes some time to happen?]

Marie: Yeah, in first semester you're walking around going, 'How can Building 509 not be here?'

...

[Jane: Is it more than that? Is it more than geographical familiarity?]

Marie: Yeah, you probably just get to feel more like you know it better ... Or you know more people. At the beginning, I'd feel like I didn't know anyone, I'd walk around ... Now even if I'm not spending my break with anyone, I'll say 'hi' to six people – I'll know six people walking around...

[Jane: So do you have a sense of how long it takes ...?]

Marie: It probably depends, maybe the first year. I was part-time before, so I really only came in two or three days a week, for a few hours at a time. But this year I have a full workload, so I have to be here for the full days ... You're forced to find places where you wouldn't want to eat, or little patches of grass where you're meant to eat... My friends who have started this year, they're starting to ... they seem to know what's going on and to know their place in it. It is about studying full time. If you're part-time, you're not as motivated or ... I think within the first six months, or equivalent – it took me a year.

This node represents the experience of both a part-time student (linking with Nodes 2 and 3 about embodying place over a prolonged period of time) and a student without a strong home base (her home building houses laboratories but no classrooms or lecture theatres, so she must move to other buildings during the day). De Certeau's concept of the renter (Node 8) is an interesting perspective from which to hear Marie's words, 'this is my place' – her transient connections with the students whose paths cross hers as she walks around campus are moments of appropriation of a place that belongs to none of them.

Node 6: Conversation between Jane Grellier and sessional tutors Sandra Adams, James Barclay and Joy Scott, 23 August 2011 (Part 2)

James: I think the university is quite exploitative, too, and we need to recognise that. It's kind of a fee-seeking corporate body and we kind of mediate it, to draw on traditions of learning that can then be modified and sold to the students. We play a fundamental mediation role between them just buying the accreditation and ... Students expect to buy accreditation, they're quite cynical, and then you're presenting low-quality iLectures, crappy rooms ... And then you've got us, who're in there ... asking them to work hard for a whole day for every two-hour unit, and they're kind of in the mode of just buying their accreditation. It's quite a big role we play, to say, 'OK you're paying for it, but this is ... you have to get something out of this. This is about what you can get from it.'

Joy: I also think this reflects on your own professional practice as well, and having some integrity about how you fit into this machine.

James: Yes.

Joy: It's not necessarily believing in it – you need you have some personal worth in there as well, the sense that you're doing the right thing by yourself and them ...
James: I think it's about teaching. If we can teach them skills to think and be critically aware, then that helps them to play the game of university and the game of career and work at the same time. And that's essentially what I'm ... as I say, What am I trying to teach? To teach them how to play the game ...
Sandra: How to think ...
Joy: How to think above everything else.

In this node the tutors disrupt the official university position (Node 1) of commitment to student learning. They extend their previous ideas (Node 4) about students needing time to register the feel of the campus 'in their muscles and bones' (Node 2), by suggesting that, not only do some students avoid engaging on this level, but the university itself condones, and even facilitates, this superficial approach to their studies. And ... and ... and ...

Node 7: Henry Giroux on learning spaces in the mass university

Extract from Giroux (2011, p. 148)

Within this framework of simply giving students what they want, the notion of effective teaching as that which challenges commonsense assumptions and provokes independent, critical thought in ways that might be unsettling for some students as well as requiring from them hard work and introspection is completely undermined. Market driven rewards cancel out the ethical imagination, social responsibility, and the pedagogical imperative of truth telling in favour of pandering to the predatory instincts of narrow-minded individual awards and satisfactions. This is self-deception, if not pedagogy of scoundrels.

Henry Giroux is among the most vocal of the many critics of the modern mass university. Even anthropologist Clifford Geertz, who describes himself as 'shy of polemic' (1999, p. 15), joins this group: 'Teaching loads are heavier; students are less well prepared; administrators, imagining themselves CEOs, are absorbed with efficiency and the bottom line. Scholarship is thinned and merchandized, and flung into hyperspace' (1999, pp. 8–9). I do not include this node in order to legitimise the discussion among the sessional tutors (Node 6) by mapping their conversation to an accepted academic voice; rather, I place the tutors' voices on the discourse paths trodden by experienced academics, bridging the hierarchical chasm between published academics and practising teachers.

The power of rhizomes to bring together a wide range of voices from different areas is particularly appropriate in educational action research, which succeeds best when teams of becoming-teachers can merge with becoming-researchers and becoming-teacher-educators in 'a chaotic, multiply connected structure' (Jove, 2011, p. 262). In this kind of (non-)structure, traditional dichotomies that privilege researchers over teacher-educators and both over

teachers are broken, as are the dichotomies between all of these groups and communities of parents, children and students (Anorim & Ryan, 2005).

Node 8: My journal entry on renters

De Certeau's (1984) concepts of strategies, tactics and the renter are central to my ongoing research in the roles of first-year students and sessional tutors in the university. In this journal entry my discussion with a student has led me to reflect on my reading of de Certeau.

12 May 2011: De Certeau's concept of 'the renter' reminds us that teachers and students alike are renters of place on campuses. They can develop tactics in which they appropriate their place, but they can never own it. They can read their place, but not write it. The institution of the university operates spaces strategically – to maintain as efficient use of the spaces as possible – but teachers work with students tactically to appropriate spaces for their learning purposes. Much of the time, the strategies of the university and the tactics of the teachers are like a tug-of-war. The more the university strives to enable students to study part time and complete their degrees in the shortest possible time (online units, iLectures, focus on students' achieving outcomes rather than engaging in classroom activities), the more teachers employ tactics to ensure students attend class, complete preparatory readings and engage week by week in classroom activities.

Students vary in the side they take in this tug-of-war. A first-year student apologised to me last week (Week 10 of semester) for not attending Communications classes regularly. His older brother (now a third year) had told him that for some units he could avoid going to classes for most of the semester, but complete the set activities and pass the units. 'But I made a mistake', he said. 'I realise now I should have been coming to class to understand the work. Is it too late to catch up?' With such sporadic attendance, there was no chance that he would begin to inhabit the learning space. (Maybe he was playing with rhizomatic structures – start in the middle, start anywhere, go in any direction, find lines of flight ...)

How to finish this rhizomatic mapping? It is apt that it finishes with a parenthesis, and with a sardonic aside that folds back to Deleuze and Guattari themselves. The comment also highlights the chasm between the university's regulatory environment and rhizomatic structures – students will not achieve certification by starting in the middle and following their own paths, and almost all teachers would agree with this position.

On a structural level, it is not possible to conclude a rhizomatic mapping, which starts and ends in the middle, and in which all nodes remain open for further connections. This node maps back to Node 1, on the university's concept of the efficient use of properties; Node 6, the sessional tutors' conversation about student engagement; Node 5, the student's discussion of how long it takes to inhabit a place; and ... and ... and ...

Conclusion

Rhizomatic mapping has allowed me to problematise learning spaces in one western university. On this map are markers related to the efficient use of resources; to the time humans need in order to inhabit spaces in their 'muscles and bones'; to learning and teaching

as acts in which one strives to develop self-worth and independence; to the importance of challenging worn assumptions; to modern universities' need to attract students; to the struggle between organisations and individual members who resist their power; to the valuing of students and teachers' wisdom alongside that of academics; and to many others. It is a messy, incomplete and limitless map, in which readers are invited to identify additional markers, and to draw their own routes between them.

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Notes

2. The term 'illicit' here suggests a forced marriage, with education being kidnapped into the dominant patriarchal family of traditional philosophy.
3. The Australian Learning and Teaching Council estimated in 2008 that between 40 and 50% of university teaching in Australia was conducted by sessional teachers (ALTC, 2008)
4. This is a pseudonym.

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