

The need for place-based education in South African schools: The case of Greenfields Primary

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The discourses of accountability and global economic competitiveness have impacted negatively on the quality of education in schools worldwide. Focused attention on the social and ecological places that people inhabit has been overshadowed by education's support for individualistic and nationalistic competition in the global economy. South African schools are not exempt from this. Despite these dominant realities, we argue that place-based education (PBE) is a transformative educational approach for counteracting this tendency. Moreover, we contend that PBE is critical to the field of environmental education – not only to encourage environmental conservation ethic among learners, but also to make them aware of the deeper social, ecological and political forces that are embedded in places. Such consciousness can only be achieved, however, if teachers are aware of their learners' sense of place. In this article, we discuss the case of Greenfields Primary, a school situated in an eco-village outside Stellenbosch, South Africa. Twelve learners' sense of place was investigated. An attempt was also made to determine what two Social Sciences teachers' understanding of the concept 'place' was, the extent to which they practised 'a pedagogy of place', and the influence that the eco-village had on their teaching approach.

Keywords: environmental education, place-based education, sense of place, striated space, smooth space, lines of flight

Introduction

Although place-based education (PBE) is not a new phenomenon and has been approached from the perspective of various disciplines such as, among others, geography, sociology and psychology, its development in the field of environmental

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education (EE) has remained limited. Knapp (2005) points out that the term appeared only recently in educational literature and is concerned with (re)connecting participants to the land and providing quality experiences in local settings. Smith (2002) asserts that PBE is a developing field of practice that aims to ground learning in local phenomena and learners' lived experiences.

We argue that PBE (a pedagogy of place¹) is particularly crucial in a South African context and can serve as a transformative educational tool to address the spatial and political inequalities that are legacies of apartheid – as will be shown in the case of Greenfields Primary. However, for PBE to be implemented meaningfully, it is essential for teachers to first be aware of their learners' sense of place. In reflecting on the case of Greenfields Primary school, we divide the article into four sections. First, we will discuss the notions of PBE, place and sense of place. This will be followed by a discussion of the case study and a presentation of its findings. Thirdly, we will discuss recent political and spatial challenges still faced in a democratic South Africa. Lastly, we conclude with the educational implications of this case study and discuss possibilities for overcoming some of the challenges highlighted by the case.

Place-based education, place and sense of place

Until recently, research on the feelings and connections that people develop toward the places where they are born and raised, and the function that these places fulfil in their lives, has been neglected in education. PBE could be considered an educational response to address this concern. According to Ardoin (2006), PBE originated from an emotional plea by educators to reconnect to the land, to become rooted and to care for places. She further points out that the notion of place is very seldom approached as a multidimensional and holistic concept. In order for PBE to be practised meaningfully, it might be necessary for teachers first to expand their understanding of the concept of place and, secondly, to become aware of their learners' sense of place. The former would imply the reconceptualisation of the notion of 'place' to create a broader understanding that moves beyond viewing place only in technical terms which reduce it to coordinates on a map (such as is mainly the case in school Geography in South Africa).

Recent studies in this emerging area are providing evidence of the cultivation of a broader understanding of place among learners. For example, Athman and Monroe (2004) report on the implementation of a PBE programme in 11 high schools across Florida (USA), in which 400 students in Grades 9 and 12 participated. The research focused on the effects of place-based learning on students' motivation and critical thinking skills. In addition to conducting interviews with selected students, they examined student performance on three norm-referenced tests, including:

- Achievement Motivation Inventory;
- Cornell Critical Thinking Test, and

- California Measure of Mental Motivation.

They found that scores were significantly raised in all three areas and that critical skills, student voice and empowerment, and connection to community improved. Furthermore, students also reported that they were motivated by real-life issues and problems (Athman & Monroe, 2004). Other empirical studies of a more qualitative nature regarding the implementation of PBE have also been reported in recent years (see Henness, 2001; Powers, 2004).

Nevertheless, our further exploration of PBE first requires some theoretical engagement with the concept of 'place'.

Place

Gruenewald (2003a) suggests that the concept of 'place' needs to be understood in broader terms and provides a multidisciplinary analysis of the term. He introduces five dimensions of place that can shape the development of PBE: the perceptual; the sociological; the ideological; the political, and the ecological (Gruenewald, 2003a: 619). These dimensions could assist in expanding teachers' perception of place. For the purpose of this article, we shall not elaborate on each of these dimensions. However, we shall make specific reference to the political dimension (political space) in discussing events (such as the farmworkers' strike in South Africa) that are relevant to the places discussed in this case study.

Creswell (2004), however, cautions that, even though the concept of 'place' could be deemed a meaningful theoretical terrain, it remains a difficult term to conceptualise because of its multiple meanings in various contexts. In order to distinguish the technical meaning of 'place' from its daily usage, Creswell (2004) provides three fundamental aspects that might be helpful: area, locality, and sense of place. We shall show that the latter (sense of place) is fundamental to practising PBE productively and shall elaborate on this notion later in the article. But let us now turn to a discussion on PBE by exploring its association with discourses of accountability.

Place-based education and the discourses of accountability

Knapp (2005: 278) defines PBE as follows: "It is a way to 're-member' participants who feel dismembered from the physical context to their immediate worlds and for them to 'remember' earlier positive contacts with nature." Furthermore, Woodhouse and Knapp (2000) describe various characteristics of a pedagogy of place: it originates from the specific attributes of a place; it is inherently multidisciplinary; it is inherently experiential; it reflects an educational philosophy that exceeds "learning to earn", and it connects place with the self and the community. According to Gruenewald (2003a), place-based pedagogies are needed so that the education of citizens might have some direct influence on the wellbeing of the social and ecological places that people inhabit. Gruenewald (2003b) further mentions that PBE serves as a response

against prevailing educational policies of standards and testing. He adds that the discourse of accountability fails to recognise the mediating role that schools play in the production of space (social context) and in the education of place-makers (or citizens) (Gruenewald, 2003a). The neglect of PBE and an over-emphasis on the discourses of accountability are also not unfamiliar in South African schools.

For example, this over-emphasis on accountability discourses can be observed in the new version of the National Curriculum Statement (NCS) in South Africa, namely the Curriculum and Assessment Policy Statement (CAPS), which rigidly manages the time of the teacher by prescribing exactly how much time should be spent on certain content, how many assignments need to be assessed, and what exactly it is that should be assessed, among other things. In South Africa, there is a growing emphasis on standards and testing, which not only leads to an increase in administrative work for the teacher, but is also in itself time-consuming.

Moreover, in the General Education and Training Band (GET), annual assessments take place in Grades 1-9 in certain provinces. The state also mandates accountability in the form of the Annual National Assessments (also known as the ANAs), which were first implemented in 2010 to measure the progression of the literacy and mathematical skills of learners in Grades 1-6 and 9, in order to determine on which level they are performing. Grades 3, 6 and 9 are regarded as terminal points in each phase. Grades 7 and 8 do not participate in the ANAs, but were included in 2014 as a pilot project (Department of Basic Education, 2014). The ANAs serve as standardised tests to assess and determine whether learners require extra assistance and to ensure that each student in every school will develop the appropriate language and mathematics skills for the specific grade. Teachers can then use these results to improve their lesson plans.

The upshot of this is that the potential for implementing PBE is undermined by the discourse of both accountability and economic competitiveness (Gruenewald, 2003b). The over-emphasis on these discourses highlights the need for change in order to counteract such dominant pedagogies. In this instance, PBE could serve as a possible avenue for schools to address the dominance of accountability regimes. As mentioned earlier, for PBE to be practised productively, it is crucial that teachers first expand their understanding of the concept of 'place' and, secondly, become more aware of their learners' sense of place. If teachers were to understand the multidimensional nature of 'place' and become aware of the emotional connections that learners have with the places they inhabit, then teachers could incorporate conversations on these connections in their classrooms, and this could facilitate practising a pedagogy of place.

Sense of place

A sense of place is critical in developing an emotional connection with the land and establishing an environmentally conscious and responsible citizenry. However, sense

of place is not something that we consider on a daily basis. Orr (1992: 126) describes this omission as “the ease with which we miss the immediate and mundane”. Resor (2010) argues that a sense of place is the most important and essential concept that needs to be understood when PBE and its place in social studies are being evaluated. However, this does not reduce the complexity of this phenomenon.

A sense of place includes people’s psychological being, social community, cultural symbols and biophysical, political and economic systems. The act of acknowledging the interrelationship between these dimensions leads to the formation of an understanding of a sense of place as a multidimensional and integrated concept (Resor, 2010). PBE, therefore, involves teachers being aware of the uniqueness of each student’s connections that they have to the places they inhabit. Against this background, we discuss the case of Greenfields Primary.

The case of Greenfields Primary School

Greenfields Primary School² is situated in the municipal district of Stellenbosch. It is located approximately 50 km from Cape Town. Stellenbosch is a university town bordered by large tracts of vineyards. It is surrounded by the Helderberg, Simonsig and Stellenbosch mountains and is also the historical commercial centre point of rich White owners of agricultural land and businesses, dominated by the winemaking industry. Black people (all formerly oppressed) not only suffered from the exclusion of economic ownership in this region since the 1600s, but also from poor housing, schooling, and higher education. Relations between White farmers and farm labourers were, for many years, characterised by the so-called “dop system” (which entailed remuneration for labour in the form of alcohol), resulting in a range of social scars and related health problems such as alcoholism and foetal alcohol syndrome. The majority of children reported on in this study are those of farm labourers.

The context of Greenfields Primary School

Greenfields Primary School is a small public coeducational school offering classes from Grades R to 8. The school had 281 learners and eleven staff members in 2012, when the study was conducted. The school is situated in an eco-village just outside Stellenbosch.³ The Lynedoch eco-village is the first ecologically designed socially mixed intentional community in South Africa (Swilling & Annecke, 2006). The village operates on the following principles: it must be a mixed community organised around a child-centred learning precinct; it should strive to be a working example of a liveable ecologically designed urban system, and it will be a financially and economically viable community that will not require external funding to sustain itself (Swilling & Annecke, 2006: 315).

Based on these characteristics, one might view the eco-village as a smooth space.⁴ In their book *A thousand plateaus*, Deleuze and Guattari (1987) introduce the ideas

of smooth and striated space to explain and analyse the different energy flows in society. A general feature of these two notions is their emphasis on the importance of the relationships we have with space and the earth as a whole. Smooth space creates opportunities for all “becomings” to occur. We shall elaborate more on the notions of smooth and striated space at a later stage.

Returning to the school itself, according to the current principal, there is uncertainty regarding the age of the school, but he mentioned that it was approximately 60 or more years old. He further described the school as a rural, non-fee-paying school⁵ and clarified that Greenfields is not a farm school. The school serves learners from 23 surrounding farms, and learners commute to school by public transport such as busses.

The inhabitants of the eco-village range from professors and elite businessmen to working-class people – mostly farm labourers. The integration of poor and rich is conspicuous in this setting, although this is not evident in the school itself, as learners who attend it are the children of pre-dominantly Black farm workers. Some of these learners live in the eco-village itself, although the majority of the learners live on the nearby wine farms. Many of the parents of the learners who live outside the eco-village are impoverished farm workers. Some of the learners live as far as 40 km from the school. Despite the unfavourable conditions of growing up and living on a farm as children of farm labourers, they were exposed to environments (other than the monocultures produced on farms), in which they could experience nature first hand.

Background to the methodology used in the case study

The empirical component of the study was framed within the interpretive paradigm and the key question that it focused on was an understanding of learners’ sense of place as well as the extent to which teachers practised a pedagogy of place.

Data-collection methods

Qualitative interviews were conducted with two teachers in the Social Sciences learning area for Grades 6 and 8. Focus groups as well as individual interviews were also conducted with learners.

The sample

The sample consisted of 12 learners (six of whom stayed in the eco-village and six of whom stayed on neighbouring farms) attending the school in order to understand their sense of place and to investigate the differences and similarities regarding the sense of place between these two groups. The assumption was made that the context of the school was more conducive for cultivating a pedagogy of place as

opposed to a school that is not located in an eco-village. Two teachers also formed part of the sample.

Data-analysis methods

Data were analysed according to the constant comparative method, using coding as a means to group and re-group data into meaningful themes.

Findings of the study

The findings of the study will highlight two aspects: learners' sense of place, and the extent to which teachers practise a pedagogy of place.

Learners' sense of place

After interviewing the Grade 6 and 8 learners, three similarities between these groups were evident in their responses to questions, namely an appreciation of the aesthetic environment; a strong attachment to the places where they live, and the nurturing of social relationships with neighbours. Learners living in the eco-village described positive experiences about the place where they lived. For example, one learner mentioned the following: "we do swap shop where we try to keep the environment clean on a daily basis by picking up papers and then we get points. And depending on these points they [the owners] supply our needs in the form of toiletries and other school essentials".⁶ However, some learners of the group living outside the eco-village experienced racism from the owners of the farms, which made them feel more negative about the places where they lived. Three of the six learners complained that their parents had to work long hours for minimum wages and that the owners had a disrespectful manner of talking to them and did not even greet them. One student had the following to say when asked what she found special about the place where she lived:

There is nothing special about my place, because the people have to work hard for little money and they come home late. My mum and dad constantly work and they work hard, but the farm owners pay them next to nothing. They don't even greet... the farmer's wife is so unfriendly and many people are afraid of them, because they are racist... this is why I just want to get out of that place.

Responses such as these indicate that the sense of place of some of the learners (staying outside the eco-village) evoked negative emotions about the place(s) where they lived. It is the negative experiences of learners and their families of the places they inhabit that are of particular interest for this article. Issues such as racism can be regarded as striating forces, which Deleuze and Guattari (1987) refer to and which we shall return to later in the article.

Although learners recognised the aesthetic beauty of the environment, some did not experience an attachment to the places where they lived because of their

experiences of racism. This is consistent with findings of research by Jack (2010), who mentions that ideal places do not always produce positive place attachment, especially when these places are examples of the location of unhappy social relationships or life experiences. Although these farms could be regarded as ideal in terms of the aesthetic environment, the ‘unhappy social relationship’ that existed between employer and employee impeded or weakened the attachment of these learners to their places. Some of them even aspired to live in places such as Johannesburg and England. When a student was asked where she would want to live one day, she mentioned: *“I would like to live in Somerset West [an affluent suburb of Cape Town] in a big house on the beachfront, because it is beautiful and nice there, just as long as there are no racist farmers compared to where I’m living now”* (translated from Afrikaans). Although learners were aware of the racism which they experienced on the farms, they tended to be mostly unaware of the larger political and economic forces influencing their experiences, based on the interviews conducted with them. This served as an indication that Social Sciences teachers at the school might not be addressing issues such as how power and politics are embedded in places, even though this is a crucial dimension to touch on – especially in the context in which they were teaching and given the ideal setting to introduce PBE. With this in mind, we next discuss the extent to which teachers implemented a pedagogy of place.

The extent to which teachers practice a pedagogy of place

Based on the interviews with the teachers, it was evident that their dominant understanding of the concept of place was technical and one-dimensional. This was noted in the way in which they defined the term ‘place’, which reduced the notion to coordinates on a grid/map. One teacher mentioned: *“We should go back to old lesson plans in geography. It won’t help if I ask a learner to point out where America is on a map and he can’t show me where America is ... it also won’t help if I do spatial orientation and the learner has no idea where the places are.”* This limited view of place that the teachers held could be the result of various factors such as the technical understanding of place that is still dominant in school Geography, a lack of exposure to PBE during teacher education sessions and workshops, national curriculum policy statements that do not adequately emphasise a broader understanding of place, and teachers’ resistance to change and to adopting new methodological approaches. The limited understanding of place among the two teachers might explain why they did not practise a pedagogy of place. In other words, insufficient knowledge of place as a multidimensional construct could also explain why learners were unaware of the political and power forces that were embedded in the places where they lived.

But how might we understand this particular case in a broader context of South Africa – its history and current challenges. We turn to such an interpretation next.

An interpretation

A South African context: The division of land (space) in South Africa during the apartheid era

To frame our interpretation, we shall first draw on the work of the feminist theorist, bell hooks, who writes in her book, *Feminist theory: From margin to center* (1984: 9) about the pain and possibility of marginalisation:

To be in the margin is to be part of the whole but outside the main body. As black Americans living in a small Kentucky town, the railroad tracks were a daily reminder of our marginality. Across those tracks were paved streets, stores we could not enter, restaurants we could not eat in, and people we could not look directly in the face. ... We could enter that world, but we could not live there. We had always to return to the margin, to cross the tracks to shacks and abandoned houses on the edge of town. ... There were laws to ensure our return. Not to return was to risk being punished.

The marginal space which hooks refers to can be linked to the notion of striated space. According to Deleuze and Guattari (1987: 474), we experience the world as a continuum of striated and smooth spaces: “[S]mooth space is constantly being translated, transversed into striated space; striated space is constantly being reversed, returned to smooth space”. Striated spaces are “hierarchical, rule-intensive, strictly bounded and confining, whereas smooth spaces are open and dynamic, and allow for transformation to occur” (Tamboukou, 2008: 360). Deleuze and Guattari (1987: 486) further claim that all progress occurs through and in striated space, but that all becoming occurs in smooth space. Smooth and striated spaces are consequently in constant interchange with each other. Therefore, it is more appropriate to refer to smoothing and striating forces (Bonta & Protevi, 2004: 144).

In the case of Greenfields, the school and the eco-village itself might be regarded as smooth spaces, although the challenges such as insufficient knowledge on PBE, the increased load in administrative work, the poverty of the learners in their class, and the unforeseen farm worker strikes (of the past few years) that teachers confront striates these spaces, hence closing opportunities for practising a pedagogy of place. Other possible striating forces influencing these smooth spaces might be the rigid National Curriculum Statement Policies such as CAPS, the school itself, and the increased emphasis on accountability. Before we elaborate on these points, we shall discuss the striated spaces which black South-Africans experienced during apartheid and point out the relevance of this to the Greenfields study.

The political space described by hooks (1990) is not unknown in South Africa. The Natives Land Act, No. 27 of 1913 prohibited Africans from buying, hiring or selling land in 93% of South Africa and confined them to ownership of only 7% (South African History Online, 2013). Despite being greater in number, Africans were denied access to land, which they owned or had been leasing from White farmers. The process of dispossession culminated during the apartheid years, accompanied by the

forced removal of numerous Black communities⁷ that uprooted millions of people from their ancestral lands, often with deliberate cruelty and without compensation. Furthermore, the Group Areas Act, No. 41 of 1950, the second key act to consolidate the apartheid regime, applied a crude template of race where the ultimate ownership of land was primarily determined by skin colour (Morris, 2012). The main purpose of this Act was to mark existing neighbourhoods in towns and cities as White – where many Black and Coloured communities had already been living for centuries. This Act succeeded in fragmenting lives and in removing entire communities from their historical places of living and working as well as from the social values which supplemented their lives there (Morris, 2007, 2012; Ross, 1999; Welsh, 2009).

By doing this, Black and White ideals could be kept separate and White survival would not be threatened by Black political and economic aspirations. This led to the disintegration of many families, as well as an increase in poverty and hopelessness. However, after the advent of democratic rule in 1994, the newly elected ANC-led government was faced with the task of dealing with a legacy of centuries of land dispossession. A ‘willing buyer willing seller’ policy was adopted as the preferred method of land reform. The government intended to redistribute 30% of land to Black people by 2014 (South African History Online, 2013).

In the context of Greenfields, the disparity of space and the legacy of the above Acts are still evident 21 years after apartheid was officially abolished. The margin to which hooks (1984) refers can be related to, and is reflected by the neighbouring farms outside Stellenbosch, where the learners described in this study live and their parents work. The majority of these parents were themselves deprived of basic quality education under apartheid and instead schooled to do hard labour or domestic chores. The frustration at the poor conditions under which farm labourers work reached a tipping point in 2012 and led to widespread strikes in the Western Cape province.

Briefly, in October/November 2012, the Western Cape province in South Africa witnessed several protests among farmworkers close to De Doorns in the Boland region. These workers protested against a daily wage ranging between R69-R75 and demanded an increase to R150 per day. Many of the protesters were seasonal workers on farms who were only employed for one season and remained unemployed for the remainder of the year.⁸ Eventually, after several rounds of negotiation, an agreement of a minimum wage of R105 per day for farmworkers was reached in 2013. During these strikes, protesters took dramatic action by burning down vineyards, crops and farmlands, and in the process destroying the environment in extreme ways. Some of the parents of the learners mentioned in this study were also involved in the strikes, protesting for a raise in wages. Occurrences such as these are crucial and present opportunities for inclusion in classroom discussions within a PBE framework. Even though PBE allows sufficient opportunity for addressing issues such as strikes,

teachers at the school did not integrate these events into their lessons or pedagogies, although they impacted directly on the lives of some of the learners in their classes.

In the interviews conducted with the teachers, it became evident that they were mainly unaware of PBE and even where they were familiar with some aspects thereof, obstacles such as the discourse of accountability limited them from introducing it to their learners. They explained that national policies such as CAPS, which is prescriptive, rigidly manages their time and classroom practices, and restricted them in many ways. As a consequence, the location of the school (eco-village) did not have any significant impact on practising a pedagogy of place. One might thus conclude that the location of this school had little influence on whether PBE was practised. This indicates that the real problem might lie in the hierarchical/organisational structuring of schools and the national curriculum, which is too prescriptive (Ontong, 2013). With this in mind, one could pose the following question: How can education respond in more critical and powerful ways to address these social, ecological and political challenges? We aver that PBE could serve as a useful tool in addressing and potentially ameliorating these challenges.

Educational implications of Greenfields Primary: Exploring possibilities for overcoming some challenges

For Sobel (1996:10), the importance of PBE is “that children have an opportunity to bond with the natural world, to learn to love it, before being asked to heal its wounds”. Leopold (1949: 223) reflects on the importance of education for this type of connection with the land when he writes:

It is inconceivable to me that an ethical relationship to land can exist without love, respect, and admiration for the land, and a high regard for its value ... The most serious obstacle impeding the evolution of a land ethic is the fact that our educational and economic system is headed away from, rather than toward, an intense consciousness of land.

The question at hand is: How might teachers educate for the development of such an emotional (re)connection to, and love for the land? The first and necessary step would be to introduce pre-service teachers as well as in-service teachers to PBE through workshops and professional development programmes (PDPs). This implies that curriculum content might need to be revised and adjusted with a broadened focus on place and PBE. Even though Geography as a discipline acknowledges and emphasises the multidimensionality of the notion of place, the intended curriculum for school Geography in South Africa still mainly focuses on the technical dimension of place. Although developing a technical understanding of place is important in Geography education, PBE also requires the development of learners’ sense of place. This implies that school Geography might also need to be reconceptualised so that it focuses on all the dimensions of place, not only its technical dimension (coordinates on a map), as reflected in teachers’ understanding in the Greenfields study. However,

it is not always possible for national policies to be adjusted within short timeframes, hence interventions have to take place at a micro level. This implies a need for professional school-based development programmes for teachers so as to extend their notion of place.

Following this, teachers could seek possibilities within the curriculum itself on how to incorporate PBE. We know that curriculum reform does not necessarily lead to pedagogical change and modifications. This is why teachers are key role players in educational change and, in this instance, their sense of place and knowledge of PBE is essential for its implementation. An extended notion of place among teachers would enable them to peruse the same curriculum content, but now through the new lens of PBE. Though much more elaboration and adjustments are needed, CAPS does provide some opportunities for PBE across different subjects. For example, in English Home Language for Grades 7-9, learners are expected to write a poetry text based on observations and experiences of human beings, nature and social issues (DBE, 2011a: 47). In the Social Sciences, both History and Geography also provide opportunities for PBE. In History, for example, Grades 7-9 teachers are expected to cover content such as, among others, the colonisation of the Cape in the 17th and 18th centuries; the Industrial Revolution in Britain and Southern Africa from 1860, and World War II (1939-1945) (DBE, 2011b: 17). In the same phase, in the Geography section, the main themes include natural resources and conservation in South Africa; settlements; resource use, and sustainability (DBE, 2011b: 18). These themes are all linked to the environment and are points along which PBE lines can be developed.

Furthermore, PBE might still not get the required recognition it deserves if the hierarchical organisation of schools and the effects it has on teachers are not revisited. A possibility of addressing these challenges is to scrutinise the 'potential lines of flight' (Deleuze & Guattari, 1987). In their work, Deleuze and Guattari introduce the central concepts of "deterritorialization" and "reterritorialization". According to Ringrose (2011), territorialisation refers to energy being captured and striated in specific space/time contexts. Deterritorialization occurs when energy might escape or temporarily move outside normative strata. Reterritorialisation describes the processes and recuperation of those ruptures. "Lines of flight" can be regarded as deterritorialisations that never stop, but rather produce multiple "rhizomatic connections" (Deleuze & Guattari, 1987: 15). Tamboukou (2008: 360) mentions that "we constantly move between deterritorialization – freeing ourselves from the restrictions and boundaries of controlled, striated spaces – and reterritorialization – repositioning ourselves within new regimes of striated spaces". Lines of flight are thus "becomings", "tiny connections" and "movements" (Beddoes, 1996).

Recognising the potential "lines of flight" requires teachers to observe that which is already there and to ask themselves how they can transform "the already existing" into lines of flight. In the case mentioned in this article, the school is located in an eco-village, which, in itself, is conducive not only to ecological education, but also to PBE. This can be considered a line of flight. If teachers become more aware of their

learners' sense of place, such consciousness can itself serve as a line of flight. Being aware of the appreciation of the aesthetic environment that these learners have for places they inhabit could be one way in which the teacher might develop this love for, and connection to the land to which Leopold refers.

Another possibility in addressing these challenges could be to practise a critical pedagogy of place. Gruenewald (2003b) suggests that a pedagogy of place should always be critical. He claims that a critical pedagogy of place is a response to educational reform policies and practices that disregard places. As in this case study, where some learners experienced racism on farms, and a curriculum that is restrictive in addressing such concerns, it would be necessary to practise a critical pedagogy of place. Such a pedagogy would enable both teachers and learners to reflect on how power works through the places they inhabit and, by eventually acting on these powers, would change the relationship they have to the places. This could be applied, should teachers integrate actual events such as the farmworker protests (the political dimension of place) into their pedagogies.

Conclusion

We conclude this article by suggesting that teachers could empower themselves in understanding the multidimensionality of the concept of 'place' and PBE, and that they should become more aware of their learners' sense of place. This would open up space for the implementation of a pedagogy of place through recognising possible 'lines of flight' and adopting a critical pedagogy of place. However, practising a pedagogy of place might be challenging for teachers if the pressures of accountability, the hierarchical organisation of schools and the lack of emphasis on PBE in the formal curriculum remain unattended to. The case discussed in this article, together with the political and spatial challenges that South Africa faces, demonstrates the need for, and importance of PBE as a potential tool for meeting these challenges through education. Furthermore, regardless of what the potential of PBE in contemporary South Africa might be, the exploration of the perceptual, cultural, ecological and political dimensions of places remains fertile ground for investigations into educational research, theory and practice. Gruenewald (2003b: 464) neatly captures the point: "The question is worth asking: Without focused attention to places, what will become of them – and us?"

Endnotes

The terms 'place-based education' and 'a pedagogy of place' are used interchangeably. In order to protect the anonymity of the school, we have used the pseudonym Greenfields Primary.

The notion of an eco-village is a fairly new one with promising ideals; however, its role in promoting environmental and social justice concerns has yet to be determined. In reality, spaces are never simply smooth or striated.

In South Africa, non-fee-paying schools refers to public schools where learners do not have to pay school fees. This is determined by the government based on factors such as the location of the school, the income of parents, total staff members and learners. These schools get financial support from the government.

All quotes of teachers have been translated from Afrikaans.

Black communities refers to those classified during apartheid as Africans, Coloureds and Indians.

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