

UNIVERSIDADE FEDERAL DE SÃO CARLOS
CENTRO DE CIÊNCIAS BIOLÓGICAS E DA SAÚDE
PROGRAMA DE PÓS GRADUAÇÃO EM ECOLOGIA E RECURSOS NATURAIS

VALÉRIA GHISLOTI IARED

**A experiência estética no Cerrado para a formação de valores estéticos e éticos na
educação ambiental**

Linha de pesquisa: Educação Ambiental

Orientadora: Prof^ª. Dra. Haydée Torres de Oliveira

São Carlos, março de 2015.

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Tese apresentada ao Centro de Ciências Biológicas e da Saúde da Universidade Federal de São Carlos como requisito para obtenção do título de Doutora em Ciências. Área de concentração: Ecologia e Recursos Naturais. Linha de pesquisa: Educação Ambiental.

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Dedico este trabalho a todos
os seres e coisas que vivem,
transitam, se movimentam
são e estão no Cerrado.

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RESUMO

IARED, Valéria Ghislotti. *A experiência estética no Cerrado para a formação de valores estéticos e éticos na educação ambiental*. 2015. 175p. Tese (Doutorado). Universidade Federal de São Carlos, 2015.

Nossas concepções de mundo são pautadas em princípios, sentimentos, emoções que perpassam uma dimensão da vida humana que envolvem os valores éticos e estéticos. No entanto, a formação de valores representa uma dimensão menos explícita da educação ambiental, quando comparada à apropriação de conhecimentos. Da mesma maneira, estudos apontam que as questões estéticas têm potencial para serem mais exploradas na pesquisa e na prática em educação ambiental. Baseadas em uma perspectiva interpretativa, assumimos como experiência estética a possibilidade do nosso corpo engajado no mundo para perceber e (re)significar todas as formas de existência. Partindo do que foi colocado, o presente estudo objetiva compreender a natureza da experiência estética no Cerrado, devido ao seu histórico de ocupação e degradação. Nessa pesquisa, transitamos entre o paradigma moderno e pós-moderno a fim de buscar compreender, em profundidade, o significado da experiência estética. Essa transição é resultado da nossa trajetória de estudo que se propôs a conhecer abordagens e métodos que respondessem à questão de pesquisa. Portanto, nossa coleta de dados se deu por meio de duas técnicas: 17 entrevistas semi-estruturadas (compreendida em um paradigma moderno, mas interpretadas junto com as/os participantes da pesquisa) e uma caminhada em movimento no Cerrado (situada como uma metodologia pós-moderna), na qual 08 participantes que já haviam sido entrevistados estavam presentes, sendo que desses 08, apenas 04 fizeram parte da coleta de dados. As/os participantes dessa pesquisa foram convidadas/os seguindo o critério de uma história de vida relacionada ao Cerrado, refletindo-se em um envolvimento amoroso com esse ambiente. Os resultados indicaram que a vivência informal e espontânea na natureza e momentos de conflito e diálogo foram significativos para o desenvolvimento de um vínculo afetivo e uma postura ética para com o Cerrado. A caminhada em movimento trouxe a perspectiva de analisar a experiência estética das/os participantes em movimento no Cerrado sendo que a pesquisadora também estava imersa na experiência. Ao invés de ser uma ação dialógica e verbal, esta atividade é corporal e o foco é a experiência multisensorial que envolve múltiplas dimensões da corporalidade e conexões com as materialidades do mundo mais do que humano. Nesse sentido, consideramos que a limitação dessa coleta de dados reside em não “acessarmos” as dimensões políticas e éticas das/os participantes da pesquisa, enquanto que, nas entrevistas houve essa possibilidade. Logo, percebemos que as coletas de dados se complementaram. Identificamos que as/os participantes dessa pesquisa tinham um posicionamento ético em relação ao Cerrado, o que consideramos sido construído a partir do diálogo entre as/os participantes e familiares, amigos/os, colegas de trabalho, leituras e estudos de texto. No entanto, essa relação não pode ser considerada a mesma em outros grupos, situações e contextos. Assim, novas questões de pesquisa que continuem a investigar a relação entre experiência estética e ética se fazem necessárias.

Palavras-chave: experiência estética, educação ambiental, valores éticos e estéticos, Cerrado, fenomenologia hermenêutica.

ABSTRACT

IARED, Valéria Ghislotti. *The aesthetic experience in the Cerrado for the creation of aesthetic and ethical values in environmental education*. 2015. 175p. Thesis (PhD). Federal University of São Carlos, 2015.

Our world views are based on principles, feelings, emotions that go through a dimension of human life which involve ethical and aesthetic values. However, the formation of values is a less explicit dimension of environmental education compared to the appropriation of knowledge. Some studies confirm the relative silence of aesthetic considerations in the literature and curriculum, so this topic has the potential to be further explored in research and in environmental education practice. Based on an interpretative perspective, we assume as aesthetic experience the possibility of our bodies engaged in the world to realize and create meanings of all forms of existence. From this, this study aims to understand the nature of aesthetic experience in the Cerrado, due to its history of occupation and degradation. In this research, we transition between the modern and post-modern paradigm in order to deeply understand the meaning of aesthetic experience. This transition is the result of our study pathway which was willing to seek for approaches and methods to answer the research question. Therefore, our data collection was carried out using two techniques: 17 semi-structured interviews (understood in a modern paradigm, but interpreted together with the research participants) and a walking ethnography in the Cerrado (located as a post-modern methodology), which 08 participants who had already been interviewed were present, and 04 out of 08 were part of the data collection. The participants were invited following the criteria of a life story related to the Cerrado, reflecting on a love involvement regarding this environment. The results indicated that the informal and spontaneous experiences in nature, moments of conflict and dialogue were significant for the development of an affective bond and an ethical stance towards the Cerrado. The walking ethnography put the prospect of analyzing the aesthetic experience of the participants moving in the Cerrado and the researcher was also engaged in the aesthetic experience of the Cerrado along with the participants. Instead of being a dialogical and verbal action, this activity is embodied and the focus is the multisensorial experience which involves multi-dimensions of corporality and connections with the materialities of the more than human world. The data that emerged during the walk in the Cerrado supplemented the interviews. In addition, we identified that the participants of this study had an ethical position in relation to the Cerrado, which we attributed to be from the dialogue among participants and family, friends, coworkers and text readings. However, this relationship can not be considered the same in other groups of people, situations and contexts. Therefore, new research questions that continue investigating the relations between aesthetic experience and ethics are necessary.

Key words: aesthetic experience, environmental education, ethical and aesthetic values, Cerrado, hermeneutic phenomenology

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SEÇÃO 1- INTRODUÇÃO GERAL



Figura 01: Cerrado na Estação Ecológica de Itirapina, SP. Foto de Reginaldo Sadao Matsumoto/ 2013.

Mesmo quando andou meio seco, dá pra sentir que o sopro andou por aquele verde retorcido antes de bater forte na cara da gente. E o Cerrado é cheio de vida, fechando os olhos por um minuto, sempre vem junto, com aquele barulhinho de coisa raspando, o som de passarinho.

Definitivamente, é uma paisagem que eu gosto. Eu acho bonito, eu acho bonito olhar, até mesmo, aquelas árvores não muito altas. Aquela coisa que você consegue, que você vai olhando à distância. Vai vendo ela um pouco espalhadas, eu acho super bonito.

E sempre quando eu penso, lembro do Cerrado, eu penso...(...) porque ali, sei lá, você vê o Cerrado ao longe, né? Então parecia meio que uma moldura, um quadro. (...)Então, você olhava praquela paisagem mais aberta, mais ensolarada. (...)Minha imagem é do Cerrado bonito em um dia ensolarado.

De enxergar beleza em um monte de árvore torta e cascuda [risos]. (...)E aí, foi outra coisa que marcou bastante, essa força, esse vigor que o Cerrado tem de renascer com esse tipo de evento [fogo], né?¹

Porque eu adoro andar no Cerrado, eu adoro ver as cores do Cerrado, de sentir os cheiros do Cerrado.

E a gente chega, parece um abismo, cheio de verde, de Cerrado, de vida (...) Era uma paz! Era um silêncio (...)E aí, quando eu vi aquilo, eu fiquei tão emocionada que eu falei (...)“nossa, que coisa linda!”

¹¹ Trechos das entrevistas concedidas pelas/os participantes à pesquisadora no segundo semestre de 2012.

Apresentação

O mundo é um lugar bom, e vale a pena lutar por ele.

Ernest Hemingway

Interessante fazer uma pausa para contar minha trajetória nessa pesquisa. Passei meses e até anos, lendo e escrevendo as narrativas e experiências das outras pessoas e agora tenho a oportunidade de descrever um pouco a minha. Na realidade, agora, estou apenas sistematizando a minha reflexão, mas, em todos os momentos, se deu esse processo que penso ser de auto compreensão. Interessante, também, como minha história e o que eu acredito estão imbricados com o referencial teórico dessa pesquisa, que é interpretativo. A todo o momento as leituras e as/os autoras/es fizeram sentido, tinham relação com o que eu penso e o que eu quero para o mundo e assim, fui me apaixonando por esse estudo. A sensação que tenho hoje é que investigar as/os participantes dessa pesquisa e estudar todo esse referencial contribuiu para compreender melhor a mim mesma e eu sou grata por isso. Grata a todas/os que me propiciaram me apaixonar e querer continuar fazendo prática e pesquisa em educação ambiental. O desenvolvimento dessa investigação foi prazeroso e, hoje, minha vontade é de continuar e continuar!

Enfim, voltando à minha história, assim como as/os participantes deste estudo fizeram, eu começo pela minha infância. Nasci e fui criada em São Paulo, a maior cidade do Brasil, mas tinha algumas opções de contato com outros seres vivos e não humanos, a começar pelo jardim da casa onde eu vivia e que minha mãe cuidava de maneira carinhosa. Também estudei durante alguns anos em uma escola que tinha um bosque, o parquinho era no bosque e eu adorava "catar" e comparar as pinhas que caíam no chão. Mas o fato mais marcante era o quintal da casa dos meus avós, que por coincidência, é minha residência atual. Meus avós moravam em São Carlos, a três horas de São Paulo e eu os visitava frequentemente. O quintal sempre foi muito espaçoso, cheio de árvores e muitas galinhas que minha avó criava. Esse era o local preferido em que eu e minhas primas brincávamos. O dia começava às 5 horas da manhã, quando minha avó me acordava para dar milho para as galinhas. Mais tarde, minhas primas chegavam e nós subíamos nas árvores, brincávamos de barata ao alto, elefantinho colorido, esconde-esconde. Nesse quintal, nós soltávamos a imaginação e, algumas vezes, bolamos peças teatrais, as quais apresentávamos para a família. Mas nossa época preferida era o verão, porque era a estação que as mangas estavam maduras. Nós passávamos o dia inteiro

subindo e descendo da árvore, para achar mangas e comê-las. Não foi só Paulo Freire que brincou muito à sombra de uma mangueira, eu também brinquei. E assim como Paulo Freire disse que ele é o que ele é por conta dessa vivência no quintal da casa dele no Recife, eu sou o que eu sou por causa das brincadeiras no quintal da casa dos meus avós em São Carlos.

Até então, o Cerrado existia na minha vida como um tipo de vegetação que eu estudava nas aulas de Geografia. Mas aos 18 anos eu me mudei para São Carlos para cursar Biologia na UFSCar e o significado do Cerrado na minha vida vêm mudando. Eu não sabia que existia Cerrado em São Carlos, ainda mais em uma área tão próxima ao prédio onde eu tinha a maioria das minhas aulas. Eu me lembro das diversas vezes que nós saíamos caminhando em direção ao Cerrado para fazer a parte prática das disciplinas. Minha lembrança do Cerrado era sempre associada a momentos de aprendizado mais espontâneos e alegres.

Em 2007, depois de formada, quando eu trabalhava na Prefeitura Municipal de São Carlos, recebi uma notícia de que uma área de Cerrado iria ser desmatada para a construção de prédios da universidade. Eu nunca entendi muito da ecologia do Cerrado, mas tinha um vínculo muito forte e aquela notícia me perturbou muito. "Tem tanta vida ali, tanta história, o Cerrado tem o direito de existir", eu pensava. Algumas/ns estudantes e professoras/es se organizaram para questionar essa decisão e eu acabei me envolvendo nesse movimento também. No ano seguinte, entrei no mestrado sob orientação da Haydée, que tem uma postura dialógica admirável com as/os orientandas/os. Optamos, juntas, por desenvolver uma pesquisa em espaços educadores de São Carlos e um deles era o Cerrado. Nosso objetivo era investigar quais dimensões da prática educativa (conhecimentos, valores estéticos e éticos e participação) eram abordados nas visitas educativas nesses espaços. Dos resultados que identificamos, o que mais me chamou atenção foi a dificuldade em experienciar sensorialmente esses espaços de maneira intencional. Talvez justamente porque a minha vivência (desde a infância) tenha sido uma experiência estética, eu considerava uma potencialidade não explorada. Assim, no doutorado, motivada pela Haydée, resolvi me aventurar por esse campo.

Em 2011, eu comecei oficialmente a trajetória dessa pesquisa. Digo oficialmente, porque ela talvez tenha começado na minha infância, no jardim da casa dos meus pais, no bosque da minha escola, no quintal dos meus avós. Estudar a natureza da experiência estética da natureza virou uma paixão. Tudo faz tanto sentido! No final de 2013, um sonho se realizou: eu fui fazer um estágio por 12 meses na Monash University, em Melbourne, na Austrália, sob supervisão do Phillip Payne. Digo que foi um sonho, porque eu sempre quis

morar um tempo fora do Brasil. A Austrália sempre me instigou por conta das histórias que ouvia sobre sua natureza exuberante, diferente e misteriosa. Então, lá fui eu, unindo o útil ao agradável: morar um tempo fora em um local que sempre esteve na minha imaginação e estudando um tópico pelo qual eu estava apaixonada. Não é realizar um sonho? Eu penso que sim!

Na Austrália, eu vivi tudo intensamente! Desde as viagens pelos parques naturais, museus, cidades, até a relação com as pessoas de cultura tão diferentes da minha. Eu estou num referencial teórico que questiona dicotomias, por isso, não consigo separar o pessoal-profissional, penso que tudo isso vai tecendo quem somos em casa e no trabalho. Na universidade, fui guiada por uma pessoa tão comprometida com a causa ambiental como a orientadora que tenho no Brasil. Assim, tive a oportunidade de focar bastante no tópico da tese e conhecer diversas outras teorias e estudiosas/os que estão me instigando a querer mais, a ser mais, como diria Paulo Freire! Uma outra coisa que carrego dentro de mim desde criança é o sonho de mudar o mundo. Eu sei que eu não posso mudar o mundo e minha tese também não vai mudar o mundo. Mas será que se juntarmos as várias vozes e disposições espalhadas por aí, dos seres humanos e não humanos, a gente não torna isso um pouco mais possível? Eu acredito que sim!

Contextualização

Defendemos que o campo de pesquisa da educação ambiental dedica-se a entender os processos educativos referentes à relação indivíduo/ sociedade – natureza, sendo que essa relação busca ser compreendida em sua complexidade. Além disso, seguindo Dussel (2000) e Freire (1987), nos colocamos ao lado da vítima ou do oprimido que, na proposta dessa investigação, são os outros seres não humanos que, historicamente, vêm sendo desconsiderados na lógica da cultura ocidental. Grün (1996) aponta a dificuldade de preservação ambiental dentro desse paradigma dominante devido, principalmente, aos valores construídos pela nossa sociedade. É por esta razão que o autor considera que cabe à educação ambiental tematizar os valores que permeiam a relação sociedade – meio ambiente. Da mesma maneira, Tavares, Brandão e Schmidt (2009) defendem ideias semelhantes ao levantarem o desafio da educação ambiental dentro da perspectiva da ética antropocêntrica. No contexto desse tema desafiador, mas, também, de alto potencial, é que essa investigação com foco na experiência estética no Cerrado foi concebida.

Na presente seção, vamos discorrer sobre os caminhos que nos levaram à questão de pesquisa e alguns conceitos e autoras/s nos quais nos apoiamos na trajetória desta investigação. Não nos demoraremos nesse detalhamento, uma vez que, nos artigos seguintes, procuramos aprofundar esses aspectos. Vamos também apresentar as questões e os objetivos da pesquisa e a estrutura na qual organizamos a tese.

Justificativa

Já vem sendo discutido há algumas décadas que a educação não deve se reduzir à transmissão de informações ou se restringir à esfera do conhecimento para chegar à compreensão; o processo passa pelo simbolizar e pelo vivenciar porque “ninguém adquire novos conceitos se estes não se referirem às suas experiências de vida” (DUARTE Jr, 1988, p. 32). O significado do mundo e das coisas possui duas dimensões, a sentida (vivida) e a simbolizada (refletida). A educação estética trabalha focalizando o sentir, a base para a compreensão: “a experiência básica que temos do mundo é emocional, ou seja, é sentida, antes de ser compreendida” (DUARTE Jr, 1988, p. 33).

Gardner (1999) acredita que se atentarmos para o que as crenças e culturas valorizam, transmitem, punem ou proibem, verificaremos que cada cultura abriga concepções específicas de como o mundo é e de como deveria (ou não deveria) ser. Essas concepções são pautadas em princípios, sentimentos, emoções, ou seja, perpassam uma dimensão da vida humana que intitulamos aqui de valores éticos e estéticos. No entanto, diversas/os autoras/es (citados ao longo do trabalho) comentam que a formação de valores representa uma dimensão menos explícita da educação e da educação ambiental, quando comparada à apropriação de conhecimentos.

Isso se deve ao fato de que as práticas educativas restringem-se ao domínio cognitivo, acarretando em um esvaziamento de práticas axiológicas (GRÜN, 1994) e se concordamos com as colocações de Gardner (1999), a maneira como esse conhecimento será aplicado, estará de acordo com valores morais, éticos e estéticos dos indivíduos. Seniciato (2008, p. 18) afirma que “uma educação em cujos objetivos esteja incluída a formação de valores é uma educação que se preocupa também com a forma que os alunos irão aplicar os conhecimentos adquiridos”. Marin (2006) acredita que falar na transposição dessa formação instrumentalista para uma formação mais ampla, onde se trabalha com todas as dimensões humanas, é deslocar a percepção de que a natureza é mero objeto de especulação e domínio para uma natureza que é morada de nossa essência.

Assim, Serrão (2005, p.01) defende que, ao atribuirmos um valor inerente ao mundo natural (considerando todas as suas instâncias e, singularmente, cada um dos seres vivos), acabamos tendo como princípio o respeito e procuramos agir de acordo com esse valor, “possuindo, portanto, a esfera ética uma indiscutível autonomia que tornaria redundantes outros apoios suplementares”. Tavares, Brandão e Schmidt (2009) afirmam que dialogar sobre valores éticos e estéticos nos remete a refletir como nos relacionamos com o mundo, desvelando posturas submissas e reprodutoras e propiciando uma reflexão profunda a partir de um olhar mais justo para com as relações socioculturais. As autoras dizem que cresce o número de pensadoras/es que vêm investindo na reconstrução dessas referências estéticas que são reflexos dos valores sociais da nossa sociedade atual.

No campo de pesquisa em educação ambiental, algumas/ns autoras/es têm se dedicado a construir um desenvolvimento teórico sobre as diferentes éticas da natureza (SERRÃO, 2005). A mesma autora diz que se desenha, ao mesmo tempo, outro fenômeno paralelo: trabalhos que investem em reflexões a partir da estética para colocar a natureza como tema central de análise. Ou seja, a natureza, esquecida em algumas culturas durante alguns séculos, volta a ser *fonte* de uma experiência estética. Marin (2006) nos lembra, ainda, que tanto a educação estética como a educação ambiental foram, muitas vezes, reduzidas à percepção analítica e ao ensino das verdades científicas. De fato, alguns estudos apontam que as questões estéticas têm potencial para serem mais exploradas no campo de pesquisa e da prática em educação ambiental (BONOTTO, 2008; BONOTTO, SEMPREBONE, 2010; IARED, OLIVEIRA, 2013; SENICIATO, 2006; VALENTI, 2010).

Para Quintás (1993), a experiência estética funda vínculos, unifica a relação eu/mundo e, por conseguinte, estabelece uma unidade repleta de significação e sentido com o entorno. O mundo distinto, até então distante, passa a ser distinto-íntimo e nessa passagem dá-se uma atividade criadora autônoma no indivíduo, que capta o aspecto relacional da realidade para dar-lhe uma configuração sensível. É nesse sentido que o autor defende que “ajudar a descobrir esta vizinhança enigmática das experiências humanas mais altas é a maior contribuição da estética para a tarefa educativa do homem” (QUINTÁS, 1993, p.26). Duarte Jr. (2009) defende que a experiência estética depende de um aprendizado e é, precisamente, por essa razão que há a necessidade em falarmos de uma educação estética. Para o autor, vamos nos familiarizando com o mundo dos nossos sentimentos e nos tornamos mais atentos às sutilezas da nossa vida interior. Ou nas palavras de Marin (2006, p.283):

... a experiência de contato íntimo com a natureza é algo que faz jorrar de nós um emaranhado de sensações, sentimentos e significados (...). O ambiente quer seja paradisíaco na sua condição preservada, quer seja povoado de elementos humanos repletos de significados e nostalgias, nos capta ao encontro e nos leva a uma percepção marcada pela complexidade.

Eis aí uma das tarefas mais desafiadoras da educação ambiental nos dias de hoje: “a de redirecionar o humano para sua liberdade criadora e a superação de uma percepção de mundo puramente racional” (MARIN, 2006, p. 277). Tavares, Brandão e Schmidt (2009) também defendem essa tarefa instigante da educação ambiental: motivar as capacidades criativas e dialógicas inerentes ao sujeito a fim de propiciar uma visão sensível do mundo, afastando-se da percepção puramente racional, hegemônica nos dias atuais. Podemos dizer que nessa perspectiva, a educação ambiental que se preocupa com os valores estéticos é crítica. É crítica porque ao valorizar o sentir, o diálogo e a alteridade, amplia horizontes, nos faz refletir sobre outras possibilidades de ser e estar no mundo com as/os outras/os em uma relação horizontal, ou seja, a proposta é de uma virada ontológica dentro do movimento da virada corporal.

A virada corporal (SHEETS-JOHNSTONE, 2009) é um movimento contemporâneo que vem questionando as tradicionais teorias cognitivas na qual aprendemos pela transmissão de representações (INGOLD, 2010). Isto é, não é uma mente em um corpo pensando, atribuindo significado para as coisas e representando o mundo e, sim, nosso corpo como centro e origem do *ser* e *estar* no mundo, ou seja, uma mente encarnada ou engajada que não separa o *pensar - fazer* e o *sentir - estar em movimento* (SHEETS-JOHNSTONE, 2009). Dentro desse movimento, considera-se que mente, corpo e mundo são indissociáveis, resultando, também, no questionamento de outras dualidades como sujeito- objeto, natureza-cultura, humanos- não humanos. A virada corporal tem uma proposta fenomenológica no que diz respeito ao estudo do movimento e do *somaesthetics* (SHUSTERMAN, 2008). Segundo esse conceito de *somaesthetics*, desde que nascemos, temos conexões viscerais com o mundo da vida como criaturas **na/com/como** natureza e o significado vem de nossas percepções corporais, movimentos, emoções e sentimentos. Essas conexões viscerais abordam o campo da estética, mas não a estética como o estudo da arte, mas como o estudo de tudo o que tem fortes ligações com o nosso corpo engajado no mundo (INGOLD, 2011; JOHNSON, 2007; SHUSTERMAN, 2008; SULLIVAN, 2001). Logo, o *somaesthetics* se refere à compreensão das ligações viscerais com o mundo e a capacidade humana para significar as experiências. Essa proposta contemporânea percebe uma ontologia na qual nosso corpo está engajado

no/com/como mundo em uma malha de fios (INGOLD, 2011) em um fluxo constante na qual mudamos o mundo da mesma maneira que o mundo nos transforma.

Partindo do que foi colocado, devido ao histórico de ocupação e degradação desse domínio, como será explicitado no próximo tópico, o presente estudo objetiva compreender a natureza da experiência estética no Cerrado em um grupo de participantes que tem um histórico de vínculo profundo e amoroso com esse ambiente.

Por quê o Cerrado?

Segundo dados da Conservação Internacional (CONSERVATION INTERNACIONAL, 2004), a taxa de devastação do Cerrado é alarmante e se continuar nessa proporção, pode desaparecer até 2030. Portanto, o Cerrado é considerado uma área prioritária para a conservação (Hotspot). A devastação do Cerrado se iniciou no século XVIII com a exploração por ouro e outras pedras preciosas, mas sua ocupação, no século XX, se deu pelo avanço da agricultura e da pecuária devido ao relevo plano e ao baixo custo dessas áreas por conta do solo com poucos nutrientes. Atualmente, ainda existe uma pressão da expansão da fronteira agrícola e urbana sobre o Cerrado (ALHO; MARTINS, 1995; BRASIL, 2007; DUARTE; THEODORO, 2002; GOMES, 2008, KLINK; MACHADO, 2005; NEPSTAD et al., 1997, entre outras/os).

Dessa maneira, identificamos na literatura brasileira trabalhos de percepção e educação ambiental em relação ao Cerrado. Apresentamos aqui, brevemente, alguns desses estudos. Bizerril (2004), em uma pesquisa com estudantes do ensino básico de uma escola em Brasília (DF), identificou o baixo valor afetivo e alto valor utilitarista em relação ao Cerrado. Além disso, os resultados indicam que faltam conhecimentos sobre a ecologia e conservação do domínio. O autor relaciona esses dados ao que é apresentado nos livros didáticos. Segundo as professoras/es que participaram da pesquisa, os livros didáticos fazem uma descrição das características físicas sem trazer questões como a biodiversidade local, os conflitos e impactos ambientais. Com relação aos livros didáticos, Bizerril (2003) analisou livros didáticos brasileiros nos quais existem poucas ilustrações de espécies animais do Cerrado, sendo a grande maioria de animais africanos, australianos e domésticos. Outros estudos apontam na mesma direção (BIZERRIL; ANDRADE, 1999; BIZERRIL; FARIA, 2003), sendo que o

Domínio² é apresentado de forma descritiva com pouca discussão sobre o histórico, inclusive cultural, e os impactos ambientais e ações de conservação. Para Bizerril (2001), a percepção do Cerrado como um ambiente seco, desprovido de beleza e utilidade é comum no discurso de muitas/os brasileiras/os.

Essa colocação de Bizerril (2001) é ratificada por estudos que apresentam os impactos ambientais antrópicos sobre o Cerrado. Assim, Ramos e Oliveira (2008) que analisaram o Programa de Uso Público do Plano de Manejo do Parque Estadual da Serra de Caldas (PESCAN). As autoras recomendam um programa educativo mais efetivo e contínuo, uma vez que essa região de Cerrado tem uma importância ecológica significativa para a região. Da mesma maneira, Medeiros e Fiedler (2004) estudaram os relatórios de incêndio no Parque Nacional da Serra da Canastra em Minas Gerais que tem como principal tipo de vegetação, o Cerrado. Os autores identificaram que 50% dos incêndios é de origem humana sendo que dessas, 47% são criminosas.

Outros trabalhos vêm desenvolvendo ações não apenas investigativas, mas também participativas, como o de Berlinck e Lima (2007) que realizaram um trabalho com contramoldes de pegadas na comunidade do entorno do Parque Estadual de Terra Ronca (PETER) em Goiás. Além de perceberem que essa é uma estratégia educativa que propicia mais interação, o estudo aponta que essa comunidade conhece a fauna local por estarem próximos. No entanto, as autoras, ainda assim, recomendam mais programas de educação ambiental para a conservação da biodiversidade do Cerrado. Seguindo a mesma linha de ação, Bizerril, Soares e Santos (2011) desenvolveram um trabalho com o lobo guará no Parque Nacional da Serra da Canastra em Minas Gerais com participação ativa da comunidade do entorno. A mobilização comunitária local e a abordagem da cultura Caipira com seus folclores e tradições foram essenciais para o sucesso do projeto.

² "A palavra Domínio deve ser entendida como uma área do espaço geográfico, com extensões subcontinentais, de milhões até centenas de milhares de Km², onde predominam certas características morfoclimáticas e fitogeográficas, distintas daquelas predominantes nas demais áreas. Isto significa dizer que outras feições morfológicas ou condições ecológicas podem ocorrer em um mesmo Domínio, além daquelas predominantes. Assim, no espaço do Domínio do Cerrado, nem tudo que ali se encontra é Bioma de Cerrado. Veredas, Matas Galeria, Matas Mesófilas de Interflúvio, são alguns exemplos de representantes de outros tipos de Bioma, distintos do de Cerrado, que ocorrem em meio àquele mesmo espaço. Não se deve, pois, confundir o Domínio com o Bioma. No Domínio do Cerrado predomina o Bioma do Cerrado. Todavia, outros tipos de Biomas também estão ali representados, seja como tipos "dominados" ou "não predominantes" (caso das Matas Mesófilas de Interflúvio), seja como enclaves (ilhas ou manchas de caatinga, por exemplo), ou penetrações de Florestas Galeria, de tipo amazônico ou atlântico, ao longo dos vales úmidos dos rios" (COUTINHO, 2015).

Ambrósio, Borém e Santos (2010) trabalharam com a implantação de uma trilha interpretativa em uma área de Cerrado e Mata Atlântica em Lavras (Minas Gerais). Para tanto, as/os pesquisadoras/es utilizaram o método IAPI –Indicadores de Atratividades de Pontos Interpretativos. Os pontos foram selecionados por uma dupla de avaliadoras/es a partir de valores qualitativos atribuídos a pontos interpretativos em potencial. Um dos pontos interpretativos selecionados foi o Cerrado, apesar de receber *baixa importância* no método IAPI. Segundo as/os autoras/es, esse ponto foi intencionalmente selecionado por ser central na temática trabalhada na trilha.

Em um projeto que abrangia oito municípios de Goiás, Mato Grosso e Mato Grosso do Sul, Benites e Mamede (2012) realizaram um trabalho participativo com a comunidade criando Grupos de Observação de Biodiversidade (GOB) que seriam responsáveis por ações de sensibilização em relação ao Cerrado através de aves e mamíferos. O curso de formação desenvolvido para o GOB continham aulas teóricas e saídas a campo. O grupo que participou das formações estava engajado e preocupado com a conservação da biodiversidade do Cerrado e consideraram que esse vínculo afetivo é fruto da experiência direta.

Um trabalho mais próximo da nossa realidade, justamente, por ser no município de São Carlos é o projeto de extensão “Visitas orientadas à Trilha da Natureza”. Valenti, Lima e Oliveira (2009) analisaram o quanto esse projeto vem contribuindo para ambientalização curricular na UFSCar, enquanto Dodonov (2013) objetivou identificar a contribuição do projeto para a formação de estudantes de graduação que eram monitoras/es nas visitas. Ambos os estudos identificaram que a dinâmica do trabalho das/os monitoras/es – reuniões semanais, participação em cursos e eventos, processo democrático nas decisões, diálogo e reflexão na elaboração das atividades – é um processo de formação do próprio grupo que potencializou seu vínculo afetivo com o Cerrado. Este resultado também foi levantado em Benites e Mamede (2012) e nos faz refletir sobre o caráter processual quando abordamos formação de valores.

Esses estudos nos mostram a importância de pensarmos em estratégias educativas que abordem a conservação da biodiversidade do Cerrado. Dessa maneira, compreender como são formados vínculos e valores atribuídos a esse tipo de vegetação, pode contribuir com trabalhos educacionais voltados para a sensibilidade estética do Cerrado.

Tensões paradigmáticas (Modernidade e Pós-Modernidade) e a pesquisa pós-crítica

Em um capítulo de livro intitulado “Arte- educação- ambiental”, Quadros et al. (2013, p.58) iniciam com a pergunta: “Modernidade e Educação Ambiental. Mas, e a arte, a emoção?”. De fato, é uma pergunta instigante para trazer uma questão que acompanha a prática e a pesquisa em educação ambiental: qual o nosso posicionamento diante da modernidade e pós-modernidade? Embora não tenha sido nosso objetivo discutir toda a complexidade que jaz na “definição” desses paradigmas, faz-se necessário nos posicionarmos e situarmos essa pesquisa entre essas duas linhas filosóficas, que têm reflexos diretos na maneira como nos organizamos em sociedade, na nossa concepção de valores estéticos e éticos e nas metodologias de pesquisa adotadas nessa investigação.

A Modernidade nasceu como uma *extensão* (PAYNE, 1999) do Iluminismo, por isso tem as suas raízes na racionalidade. A promessa / esperança era ou é resolver todos os problemas da humanidade com base na razão, na ciência e tecnologia. Como Sauv  (1999, p.12, tradu o nossa) afirma:

a epistemologia moderna   positivista;   baseada em uma busca pela objetividade e se baseia na racionalidade instrumental para legitimar o conhecimento e organiz -lo em disciplinas separadas. A  tica moderna   antropoc trica e o  nico limite   liberdade do indiv duo   o respeito pela liberdade dos outros. A democracia   vista como o navio de tal liberdade.

Algumas/ns autoras/es p s-modernas/os dizem que a modernidade falhou com sua promessa de liberdade, justamente porque testemunhamos uma crescente desigualdade social e destrui o ambiental, enquanto Payne (1999) coloca a p s-modernidade como um movimento filos fico que se originou em extens o   modernidade. E, de fato, n o   simples conceituar o que   p s-moderno, j  que "n o h  apenas um conceito de p s-modernidade, mas uma rica diversidade de discursos e pr ticas p s-modernas. Coexistindo entre estes, s o v rias manifesta es de niilismo (p s-modernidade desconstrutiva) e abordagens transformacionais (p s-modernidade reconstrutiva)" (Sauv , 1999, p.12, tradu o nossa). Nossa op o foi apresentar quais os desafios e potencialidades dessa tens o para educa o ambiental e nosso movimento entre esses paradigmas.

De maneira geral, o movimento p s-moderno contesta o conhecimento (cient fico) como a base da nossa sociedade. A epistemologia n o   positivista,   relativista, ou seja, n o h  uma verdade universal (como o pensamento moderno afirma), seja na forma de ci ncia, seja na forma de religi o, seja na forma de lei ou arte. Nesse movimento filos fico, outras dimens es da vida humana (e por qu  n o dizer n o humanas tamb m?) s o discutidas e

valorizadas. Outras formas de pensar e ser-no-mundo são pautadas: sensações, sentimentos, emoções e intuição. De acordo com Lousada (2014), a crise ambiental de nosso tempo denota uma crise do paradigma moderno, o qual instaurou o antropocentrismo como referência na relação com as demais espécies da natureza e no nosso modo de ser e estar no mundo. Para o autor, a superação da crise ambiental socilicita a desconstrução do paradigma moderno. Grün (1994) também faz uma crítica à visão racionalista de mundo, fruto da Ciência Moderna, que promoveu a distinção e separação das dualidades sociedade e natureza, ciência e ética, o que resultou na carência de discussões e problematização das reflexões éticas pela sociedade. Segundo Goergen (2005), a racionalidade moderna propiciou a universalização das dimensões teóricas (científicas) e práticas (éticas), sendo que ambas compõem a matriz de qualquer conhecimento. Decorrente dessa situação, temos alguns princípios universais: "direitos humanos, justiça social, equilíbrio entre cooperação pacífica e auto-afirmação pessoal, sincronização da conduta individual e do bem-estar coletivo" (GOERGEN, 2005, p. 1000). Por outro lado, este autor se preocupa com o relativismo ético proposto por algumas correntes pós-modernas, pois foca o individualismo e perde a perspectiva histórica e utópica de uma sociedade mais justa e igualitária.

De fato, alguns autores argumentam que a pós-modernidade tem fortes ligações com o "vale tudo" (HELLER, FEHÉR, 1998; PAYNE, 1999). Isso é um desafio a ser enfrentado pela educação ambiental que, na nossa perspectiva, concebe a ética ambiental como princípio universal de respeito a todas as formas de vida. No entanto, isso não quer dizer que a pós-modernidade não possa fomentar novos dogmas e desenvolver suas próprias metanarrativas e verdades (SAUVÉ, 1999). Criticando as/os autoras/es que argumentam sobre o "vale tudo", St. Pierre (2000) diz que o relativismo defendido pela pós-modernidade não é irresponsável, irracional, ou niilista. Se não existe uma verdade absoluta para todas as instâncias é porque a verdade é múltipla e contextual, justa aos compromissos contextuais e particulares, pois problemas complexos não têm soluções generalizáveis. A ética seria, então, construída de maneira inter-relacional num movimento da base para cima- *bottom-up* (JAMES, 2006).

Bonotto (2008) traz uma contribuição importante para pensar a educação em valores na educação ambiental, pautada no impasse entre posições relativistas e universalistas, comentando que os *valores ambientalmente desejáveis* podem ser identificados junto ao Tratado de Educação Ambiental e, justamente, por ter sido elaborado pela sociedade civil de diversos países, pode ser considerado representativo de seus valores, anseios e entendimentos.

Concordamos com as colocações da autora sobre se posicionar em favor de *valores ambientalmente desejáveis*, principalmente porque nossas atividades educativas são um ato político (FREIRE, 1987) e estamos assumindo a defesa e respeito à vida e à sobrevivência de todos os seres do planeta como princípio. No entanto, isso não significa não reconhecer como importantes e válidas outras opiniões, discursos e formas de ser e estar no mundo durante a prática educativa, uma vez que não existe consenso sem exclusão e o que é universal pode ser considerado culturalmente variável (SUND; ÖHMAN, 2014). A autora e o autor afirmam que precisamos ir além da divisão entre relativismo e objetivismo na educação ambiental. Eles também questionam o uso de valores universais enquanto uma meta ou solução no processo educativo, como um risco da educação ambiental ser tratada como um instrumento ético e acrítico e sugerem a problematização dessas posições políticas, motivando as/os educandas/os a repensarem os próprios princípios em conflito ou consonância com de outros grupos.

Hermann (2005) também reconhece a intencionalidade ética como fundamental em um processo educativo. Coerente com a tensão paradigmática entre o moderno e pós-moderno, tanto Bonotto (2008) como Hermann (2005) apontam para a potencialidade da estética na educação ao defender que a estética tem um histórico de luta contra a eliminação das diferenças e a tendência à homogeneização e, portanto, se constitui como um campo de trabalho no qual novas possibilidades éticas podem ser construídas diante da pluralidade e, assim, transcender as fronteiras racionais da interpretação. Logo, “experiência estética traz o estranho, a inovação e a pluralidade que não podem ser desconsiderados no plano da interpretação e problematização do agir moral” (HERMANN, 2005, p.23). Como será apresentado no segundo artigo desta tese, muitas/os outras/os autoras/es vêm defendendo essa articulação entre estética e ética.

A concepção do termo estética é bastante ampla e sua concepção também encontra-se situada entre a tensão entre modernidade e pós-modernidade. Como colocado anteriormente, o pensamento moderno não considera essa dimensão dual da vida (humana e não humana) e quando a faz, está submissa à regras pré-estabelecidas ou pré-categorizadas (LYOTARD, 1986). Hermann (2005) se refere à Welsch (2005)³ para contextualizar a estetização das categorias de verdade, conhecimento e realidade, que são baseadas no racionalismo e na ciência moderna. No entanto, assumimos uma outra perspectiva ao longo dessa tese. Como será exposto em todos os artigos, nosso conceito remete ao *sujeito encarnado* de Merleau-

³ WELSCH, W. Estetização e estetização profunda ou: a respeito da atualidade do estético. Trad. Álvaro Valls. *Porto Arte*, Porto Alegre, v. 6, n. 9, p. 7-22, maio 1995.

Ponty (2006) ou *mente encarnada*⁴ (em oposição às teorias da cognição) ou *somaesthetics* de Shutterman (2008), termo que o autor vem trabalhando e remete à forte integração entre em corpo, mente e cultura. *Somaesthetics* refere-se a um campo de estudo e pesquisa interdisciplinar no qual o corpo é concebido como um lugar sensorial de apreciação estética e ao reconhecer corpo, mente e cultura como profundamente co-dependentes, identifica que a vida e a saúde mental depende da experiência somática. Assim como Shutterman (2008), outras/os autoras/s (GALLAGHER, 2005; JOHSON, 2007; SHEETS-JOHNSTONE, 2009) vêm investindo nesse campo de pesquisa interdisciplinar com aportes da filosofia, neurologia, entre outras, para pensar a questão do nosso corpo e mente encarnado. Sendo assim, assumimos como experiência estética a possibilidade de sentir com os sentidos, sendo que esse termo tem uma conotação ambígua: sentir com os sentidos humanos (visão, audição, olfato, paladar, tato e outros que desconhecemos) e sentir atribuindo sentido (significado). Esse posicionamento nos solicita uma abertura ao mundo para (re)perceber e (re)significar o mundo em todas as formas de existência. Segundo Johnson (2007), houve uma subjetivização da estética e esse campo ficou confinado como o estudo da arte, do julgamento e do gosto subjetivo. O autor acrescenta que a estética está ligada ao entendimento das nossas *conexões viscerais com o mundo* e que esses encontros com o mundo são resultados dos nossos movimentos sensoriais, percepções, emoções e sentimentos.

Dito isto, voltemos a pensar na metodologia de pesquisa delineada para esta tese. E tomando as palavras de James (2006, p.83), “*life is now so confusing*” (a vida está tão confusa agora), precisamos pensar com cuidado nas maneiras pelas quais nos propomos a compreender a natureza ontológica e epistemológica da experiência procurando métodos de coleta e análise de dados coerentes com a questão de pesquisa (PAYNE, 2009). Segundo James (2006), em tempos pós-modernos, a teoria é dinâmica, assim como o mundo. Para o autor, a comensurabilidade na pesquisa requer assumirmos diferentes camadas da realidade (*layers of reality*), sendo que cada camada solicita um tipo de abordagem e uma linha de autores. Esse aspecto parece ser interessante em James (2006) no sentido de que ele não propõe ficarmos presas a um conceito teórico, pois temos uma realidade complexa para desvelar e, muitas vezes, um/a autor/a e uma teoria não contemplam essa profundidade.

⁴ O paradigma da mente encarnada concebe a natureza indissociável do trinômio mente-corpo-mundo (ARREGUY, 2008).

Da mesma maneira, Hart (2005, 2013) nos instiga a refletir sobre a pesquisa em um contexto no qual a discussão paradigmática e o crescimento dos movimentos "pós" (pós-modernismo, pós-humanismo, pós-fenomenologia, pós-estruturalismo, etc.) se refere à uma crise de representação e legitimação. Segundo o autor, como pesquisadores reflexivos devemos compreender os limites dos nossos conhecimentos, estarmos mais conscientes das múltiplas camadas da realidade e sermos críticos em relação às nossas próprias investigações para nos desafiar a pensar para além das definições tradicionais e espaços familiares. Para tanto, o aporte de outros campos de conhecimento como antropologia, filosofia, psicologia vêm se estabelecendo como uma força que nos impulsiona a reconhecer nossos desafios e buscar por inovações metodológicas (HART, 2013). Para Hart (2005), uma investigação dentro desse contexto, pode ser definida como uma pesquisa **pós-crítica**.

Assumimos nessa pesquisa um movimento no qual transitamos por diferentes ontologias e epistemologias afim de buscar compreender, em profundidade, o significado da experiência estética. Essa transição é resultado de um deslocamento tanto físico e intelectual da própria pesquisadora que iniciou seus estudos no Brasil com a leitura de clássicos como Merleau-Ponty e Gadamer e, após, 12 meses de estágio na Austrália, ampliou e adicionou para o escopo teórico do estudo autoras/es contemporâneos como Sarah Pink e Tim Ingold. Dessa maneira, passamos por autoras/es como Merleau-Ponty, com uma ontologia mais subjetivista, ou dual, como Paulo Freire, ou ainda Tim Ingold que nos apresenta a indissociabilidade entre mente, corpo e cultura. Disso decorrem diferentes epistemologias, baseadas na interpretação hermenêutica, como acreditava Gadamer, ou no diálogo, recorrendo a Freire ou no corpo engajado no mundo, discutido por Ingold. Esses autores, apesar de se aproximarem na abordagem interpretivista, tem alguns conceitos diferentes que merecem destaque como, por exemplo, o a interpretação na hermenêutica de Gadamer e o diálogo de Freire podendo ser concebidos enquanto metodologias de pesquisa, é ampliado na ideia de Ingold de que compreendemos a experiência vivenciando **junto/com/como** tudo que habita o mundo. Isso traz a perspectiva de um/a pesquisador/a que também esteja presente na multisensorialidade da experiência, ligando-nos na mesma atividade diária de outras pessoas (PINK, 2009). Segundo a autora, a percepção sensorial não é apenas dialogada e nossas interações sociais não são apenas baseadas em comunicações verbais e impressões visuais. Ou seja, apreender as experiências de outras pessoas pode ser melhor compreendida quando nós, pesquisadoras/es, também estamos vivenciando e não apenas ouvindo ou lendo as "representações dessas experiências" (THRIFT, 2008).

Isso nos leva a outro conceito que também será apresentado ao longo da tese e que vem sendo discutido nas ciências sociais - a *teoria não representacional* ((THRIFT, 2008) - que problematiza a maneira na qual estamos "acessando" nossos dados e tradicionalmente representando-os por meio de números e textos. Nessa teoria emergente, as/os pesquisadoras/es que assumem essa proposta como válida, procuram inovações metodológicas e uma análise e representação dos dados mais comensurável com a questão de pesquisa. A proposta dessa teoria nos pareceu instigante e coerente com a temática do estudo, já que estamos falando de respostas afetivas e vínculos emocionais profundos em relação à natureza.

Esse deslocamento físico e intelectual, citado anteriormente, reflete a trajetória de estudo e pesquisa ao longo da tese, que se propôs a conhecer e buscar autoras/es, abordagens e métodos que respondessem à questão central da pesquisa. Logo, os artigos se apóiam em linhas de autoras/es e metodologias que se aproximam por serem interpretativistas, mas não são as mesmas por se basearem em teorias com diferentes posicionamentos diante das tensões paradigmáticas entre antropocentrismo e ecocentrismo e entre modernidade e pós-modernidade. Os artigos apresentados demonstram os diferentes caminhos que percorremos ao longo dessa pesquisa na tentativa de sermos mais coerentes com o rigor teórico e metodológico.

Questões de pesquisa:

Diante do contexto teórico apresentado, nossas questões de pesquisa foram:

- Qual a natureza das experiências estéticas no Cerrado das/os participantes do estudo que têm por característica um forte engajamento afetivo com esse ambiente?
- Quais foram as experiências e estratégias que contribuíram para a formação de valores estéticos e éticos em relação ao Cerrado desse grupo participante?
- Qual a articulação entre a experiência estética dessas/desses participantes e sua postura ética em relação ao Cerrado?

Objetivos:

1. Ampliar e aprofundar o campo teórico e metodológico que se dedica ao estudo da experiência estética em educação ambiental.

2. Identificar espaços, motivações e estratégias que propiciaram a formação de valores estéticos e éticos em relação ao Cerrado de um grupo de participantes que têm um histórico de vínculo afetivo com o Cerrado.
3. Identificar e articular sentimentos, emoções e percepções que emergiram durante a experiência estética no Cerrado nesse grupo participante.
4. Estudar o movimento e a caminhada como aspectos intrínsecos à experiência estética no Cerrado com o mesmo grupo de participantes.
5. Refletir sobre a importância da dimensão estética na educação ambiental em uma perspectiva de articulação entre valores estéticos, éticos e políticos, fundamentando uma perspectiva crítica de educação ambiental.

Organização da tese:

No Programa de Ecologia e Recursos Naturais (PPGERN/UFSCar) um dos formatos de apresentação da tese é um conjunto de artigos a serem enviados para periódicos indexados na Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES) e listados segundo a avaliação Qualis como A1, A2, B1 e B2. Dessa maneira, as próximas seções estarão em formato de artigos, com autora e co-autoras/es e seguindo as normas dos periódicos escolhidos para submissão, que estão em Anexo.

A presente seção é a **Introdução Geral**, na qual discorremos sobre os caminhos que nos levaram à questão de pesquisa e alguns conceitos e autoras/es nos quais nos apoiamos na trajetória dessa investigação. Apresentamos, também, os objetivos da pesquisa, assim como a estrutura na qual organizamos a tese, que contém 5 artigos.

O primeiro artigo, intitulado **The aesthetic experience of nature and hermeneutic phenomenology**, foi enviado ao *The Journal of Environmental Education* (normas para submissão no ANEXO A) em julho de 2014, encontrando-se em fase de avaliação. Trata-se de um ensaio crítico o qual examina alguns dos conceitos-chave sobre a hermenêutica e a fenomenologia introduzidas por filósofos como Kant, Dufrenne, Bachelard, Merleau-Ponty, Gadamer e Quintás e indica algumas implicações metodológicas. Nosso objetivo é avançar como a compreensão da natureza da experiência estética na natureza pode informar diferentes pesquisas e orientações pedagógicas de ser e se relacionar com a natureza.

O segundo artigo nomeado **Philosophical hermeneutics and critical pedagogy in environmental education research and practice** foi submetido ao *Canadian Journal of Environmental Education* (normas para submissão no ANEXO B) em janeiro de 2015. O artigo também é um ensaio crítico e tem por objetivo aproximar Gadamer, um teórico com

abordagem na hermenêutica filosófica, e Freire, estudioso pautado na pedagogia crítica para pensarmos em possibilidades de prática e pesquisa em educação ambiental. Neste estudo, ressaltamos as contribuições e desafios desse caminho em um contexto latino-americano, uma vez que algumas correntes teóricas vêm questionando o papel da linguagem.

O terceiro e quarto artigos se pautam na perspectiva teórico-metodológica discutida no segundo. Os estudos são dois recortes de 17 entrevistas realizadas com pessoas que tinham um histórico de envolvimento experiencial e afetivo com o Cerrado. O terceiro artigo, intitulado **Formação de valores estéticos e éticos e o Cerrado** apresentado e publicado como trabalho completo no *VII Encontro de Pesquisa em Educação Ambiental* em 2013 (normas para submissão no ANEXO C) objetivou levantar quais estratégias, experiências e vivências que contribuíram para a formação de valores estéticos em articulação com os valores éticos que se tecem na formação do vínculo afetivo com o Cerrado. No quarto artigo, **Aesthetic experiences in the Cerrado (Brazilian savanna): contributions to the field of research and environmental education activities**, o recorte recai sobre os sentimentos, percepções e emoções no contexto das experiências investigadas. O artigo foi submetido para avaliação no periódico *Environmental Education Research* (normas para submissão no ANEXO D), em fevereiro de 2015. As entrevistas realizadas indicaram que as percepções, emoções e sentimentos foram *processos* recíprocos, não lineares, em constante movimento e constituíram, como um todo, o que denominamos como experiência estética no Cerrado. Esse resultado já traz como perspectiva a metodologia utilizada no quinto artigo.

O artigo **Walking in the Cerrado (Brazilian Savannah): interpreting the aesthetic experience** é pautado em um movimento filosófico que traz a virada corporal como pivô da experiência estética. Nesse sentido, algumas/ns autoras/es como Tim Ingold, Sarah Pink, Maxine Sheets-Johnstone (entre outras/os) afirmam a importância das investigações móveis (*mobile investigations*), as quais percebem o corpo em movimento como fonte de compreensão do nosso ser e estar no mundo. Logo, a proposta do estudo foi realizar uma caminhada em movimento no Cerrado e identificar as respostas sensíveis e afetivas apenas relacionadas com o corpo em movimento. Pretendemos submetê-lo ao periódico *Qualitative Inquiry* (normas para submissão no ANEXO E).

Na última seção, **Reflexões finais**, procuramos articular as ideias apresentadas em todos os artigos para uma discussão geral dos resultados apresentados e das metodologias adotadas na presente pesquisa. A partir dessa análise, apresentamos as contribuições deste

estudo para o campo da pesquisa e prática em educação ambiental e novas questões e possibilidades de continuidade que surgiram durante a investigação.

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SEÇÃO 2- ARTIGO 1



Figura 01: Cerrado no Parque Estadual de Vassununga, SP. Foto de Reginaldo Sadao Matsumoto/2013

Neuropoesia

Não seria possível,
 E, por que não, exigível,
 Pensar com o coração
 E sentir com a razão?

Consultei o sistema límbico,
 Que à emoção é intrínseco,
 E, se entendi direito,
 É possivelmente perfeito.

Não seria interessante
 E, em seguida, relevante
 Reconhecer na filosofia
 Horizonte para a neurologia?

A quem não agrada desafiar dualismos,
 Consternar convicções, esfacelar aforismos?
 Não se haverá de compreender impunemente
 A integração entre corpo e mente.

Desfazer certezas de outrora
 E analisar o espírito em sua aurora
 É admitir a ostensiva limitação
 Do que nos serve de orientação.

Apaixonei-me pela área pré-frontal,
 Córtex de associação supramodal.
 Fica a dúvida: existo porque penso
 Ou penso porque existo?

Autor: Luiz Carlos Fávero Junior

Article Title: The Aesthetic Experience of Nature and Hermeneutic Phenomenology

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Abstract:

One aim of environmental education is to encourage different ways of generating meanings, valuing, conceiving and contextualizing 'nature.' The field of aesthetics provides an affective basis for interpreting our perceptions of environments and relations with other more-than-human beings. This critical essay examines some of the key concepts about hermeneutics and phenomenology introduced by philosophers such as Kant, Dufrenne, Bachelard, Merleau-Ponty, Gadamer and Quintás and then indicates some methodological implications. Our purpose is to advance how understandings of the nature of the aesthetic experience of nature might inform different research and pedagogical orientations of being in, becoming and relating with nature.

Keywords: aesthetic education, hermeneutic phenomenology, environmental education research, post-critical

Situating and framing the study

The aesthetic experience, appreciation of, and concern about nature has historically informed the experiential pedagogies and interdisciplinary aspirations of environmental education and its research. The still undertheorized role of aesthetics, and its embodied or 'soma' and 'eco' animations in environmental education research has typically assumed or presumed their qualities, characteristics and values. These affective attributes, however, are rarely conceptually developed and/or empirically described due to the 'non representational' problem in the social sciences and humanities of interpreting and explaining the primordial and, often, pre-conscious and pre-rational/linguistic experiences of selves and ecological others (Descola, 2013) found historically in 'nature' (Thrift, 2008). Furthermore, the non-representational that problematizes efforts to represent the affective and (eco)somaesthetic experience of nature is further complicated when the 'correspondence' problem overlays it (for example, Sparrow, 2014). Simply speaking, the correspondence problem highlights the 'gap' between thought and being and, in doing so, rejects the ontological primacy of the legitimacy of the alleged correlation between them, exacerbated here when the problematic of nature is included in interpretive inquiry. More recently, within environmental education research, there are 'post-human' (for example, Braidotti, 2013) signs that the 'eco/soma/aesthetics' of bodied or corporeal, or vitalistic human 'being' and the animated aesthetics of natures, and their environments, can partially be incorporated 'post-critically' into the ethical and political warrant of such research (Hart, 2005; Payne, 2013). This warrant for an 'ecophenomenology' (Brown & Toadvine, 2003) will persist as an interpretive problem and challenge, notwithstanding the limitations openly acknowledged above. Rather than dwell on those conceptual and experiential/existential limitations, or their implications for methodological (and pedagogical) speculation and experimentation in environmental education and its research, our primary generative interest here is to outline some historically influential understandings of aesthetics and their key understandings while broadly responding to related considerations of the deeper ontological-axiological-epistemological and methodological 'tensions' underpinning the framing of environmental education research (Robottom & Hart, 1993). Our modest aim is to 'affectively' (Clough & Halley, 2007) and

(non)representationally advance a more ecological approach to the framing, naming and situating of environmental education practices, pedagogies, curricula and research within a generalized account of the aesthetic experience of nature. We aim also to push partially into empirical work we are currently undertaking so as to advance the current state of affairs with/in environmental education research. For example, hermeneutics and carnality (Jardine, 1998; Abram & Jardine, 2000), hermeneutic phenomenology (Sammel, 2003), post-phenomenology (Payne, 2003), phenomenological deconstruction (Payne & Wattachow, 2009) and ecophenomenology (Payne, 2013).

Based on an ongoing interpretive and empirical study of participants responses to and relations with aspects of the “Cerrado” (Brazilian savannah) in São Paulo State, Brazil, we also bring an ‘othered’ Brazilian “geo-epistemology” (Canaparo, 2009), or cultural ontology, to these current ‘border crossing’ deliberations found phenomenologically in the discourse of environmental education. This geo-epistemological and phenomenological move reflects our bodied positionings as researchers who are significantly shaped by an overlapping range of historical-cultural-geographical “locales” of meaning-making and knowledge generation.

Anglo-speaking readers are representationally and textually already very familiar with David Abram’s (1996, 2010) ‘earthly cosmological’ extension of the North American ‘nature writing’ genre animated vitally through his ‘synaesthetic’ emphasis on the fusion of the senses, or ‘sensorium’ (Stoller, 1989). They are also very familiar with Aldo Leopold’s (1949/1953/1966) prescient interest in ‘perception’ and, for example, cannot fail to be moved ethically and politically by his ‘trigger-itch’ complicity in witnessing the old fierce green fire dying in the old wolf’s eyes.

More broadly, amongst numerous examples of increasing interest in the potentially positive role and ‘place’ of environmental perception in fostering ethically embodied relations with ‘nature,’ Tim Ingold’s (2000, 2010) ecological anthropology has conceptually and theoretically heightened the seriousness of incorporating spatially attuned ‘movement’ into our ecopedagogical practices and research framings of, for example, the possibility of a renewed understanding and emphasis on ‘aesthetics education’ in environmental education.

According to the Portuguese Author, Adriana Serrão (2005), there are distinct approaches to the study of the aesthetics of nature, as the interpretations of the concepts of nature and aesthetics vary considerably both within and across culture-nature locations and relations. The focus on the cognitive and affective components of aesthetics varies also, which means these different ways of conceiving the aesthetic experience assign different roles to the subject of aesthetic assessment. To be sure, the field of aesthetics, and particularly the aesthetics of nature, give rise to deep philosophical debates (Serrão, 2005).

Etymologically the word aesthetic comes from the Greek *aisthesis*, which means feeling or sensitivity, and *aisthanestai*, to feel with the senses. Writing in Brazil, Marin (2006) claims the term aesthetic “refers to the human capacity to transcend the immediate perception of things that make up the world” (p. 279, our translation). For Savile (2000), the meaning of *aesthetic* depends on the context. It can designate a series of artistic interests and stylistic choices that dominate the modes of artistic production of a period (for example, ‘aesthetics of the Renaissance’, ‘Baroque aesthetics’), or it may refer to the emergence of philosophical concerns in our thoughts on the arts, objects and artifacts that attract our sensibility and taste beyond the arts, a point raised in Smith’s (2005) review of aesthetics education and in David Cooper’s (2006) (phenomenological) philosophy of gardens and garden-practices and Frederic Gros’s (2014) philosophy of walking.. From the adoption of an existential and phenomenological perspective in nineteenth century thought (Serrão, 2005), the concept of aesthetics gained strength:

The aesthetics of nature is practiced mostly by German thinkers and is rooted in the great tradition of enlightenment and romantic philosophy, but with the awareness that nature is no longer a primordial reality, as it suffers the continual action of factors that repeatedly cause profound changes and intervene in the process, leading to at least partial extinction of many species and their patterns of functioning (p. 2, our translation).

Most recently, in the anglo-speaking North/West, a heightened philosophical interest in ‘somaesthetics’ (for example, Johnson, 2008; Shusterman, 2008; Sullivan, 2003) problematizes the assumed ‘subject’ of an objective understanding of environmental aesthetics whose historical focus and locus emphasizes external nature. Often indebted to the thought of John Dewey and his central premise of ‘growth’ through the organism-environment interaction, that ontological-epistemological study of somaesthetics shifts that already presumed locus and focus of inquiry on statically objectified and ‘phenomenalized’ (or ‘noema’) ‘subjects’ to include the (human) sentient body (noesis) but for our reflexive purposes as they are vitally and vibrantly ‘in relation’. Somaesthetics is part of the ‘corporeal turn’ in contemporary theory, in which there is a very strong phenomenological philosophy orientation (Sheets-Johnstone, 2009). In ‘turn,’ there are significant implications for cognitive science and the development of relevant educational, curriculum, pedagogical and ‘learning theory’ (for example, Gallagher, 2005) (and which is beyond the scope of this study) that ontologically and epistemologically draws together environmental and soma esthetics in an ‘ecological’ manner, hence our use of the signifier eco/soma/esthetics.

Within the ‘applied’ field of ‘aesthetics education,’ a recent meta-analysis by the North American Ralph Smith (2005) highlighted a number of questions and issues of relevance to environmental education and its research. Amongst these, drawing inspiration from three generative thinkers – Schiller, Read and Dewey, Smith examined contemporary trends in aesthetic education. One issue he identified was the need for aesthetics education to move beyond its location as a form of art or arts education only, or primarily. Here, Smith identified the importance of incorporating environmental and natural aesthetics into deliberations and debates about aesthetics education, and briefly surveys some of the very recent key contributions. Despite his valuable meta review, the discourse of environmental education and environmental education research is not mentioned. More generally in academic research, the Brazilian authors (Marin, 2006; Marin & Kasper, 2009; Marin & Lima, 2009) have published articles that frame the aesthetic experience of nature in education within a hermeneutic phenomenological approach. They also have broadly considered the underresearched and undertheorized links between aesthetics, ethics, and politics in education. Other Brazillian researchers confirm the relative silence of aesthetic considerations in environmental education practices (Bonotto, 2008; Carvalho, L., 2006; Iared & Oliveira, 2012; 2013; Marpica, 2008; Valenti, 2010). They recommend further research be undertaken to understand this major gap in the literature as mirroring our current limited understandings of society and education within our interpretations of nature and culture relations in order to enlarge the transformative capability of environmental education.

In situating and framing this study, our aim is to provide generalized insights into the hermeneutic phenomenological approach of eco/soma/esthetic experience of nature and then consider how some of the concepts might also be consistent with Brazilian approaches to critical environmental education (Carvalho, 2004; Guimarães, 2004). Finally, ever mindful of the mutually constitutive non-representational and correlational problems, , we conclude with a very brief indication of emerging methodological approaches relevant to environmental education pedagogy and research that we have found are helpful in both empirical work and

researcher reflexivity. Much more theoretical, methodological and empirical work needs to be done.

The aesthetics of nature in a phenomenological hermeneutic perspective

Here, we ‘track’ some of the most influential contributions to aesthetics in a way that sheds light on how ‘nature’ affect and meanings have been ‘treated.’ Plato, of course, relegated sense experience to the lowest aspect of knowing while idealizing the superiority of the abstracted forms. In so doing, Plato’s legacy is to limit the value of body knowing or somatic understanding while elevating the importance of the mind, this contributing dualistically to a ‘values hierarchical’ approach to ‘knowledge’ that, ironically, persists in much western thought, despite numerous efforts ranging from John Dewey (1920/1948) to contemporary feminists, to speculative realists, new materialists, post-phenomenologists and post-humanisms to ‘reconstruct’ or/and ‘deconstruct’ such epistemologically constructivist philosophical and conceptual dualisms and binaries.

Over time, primarily within a European geo-epistemology, Kant holds a "decisive and exceptional place in the history of aesthetic thought" (Rosenfeld, 1991, p.18, our translation). He proposed the assignment of aesthetic taste as a third kind of knowledge that is neither logical-scientific nor that of moral laws. In other words, for Kant, aesthetic taste is a specific domain, autonomous from the moral and the empirical domains.

Kant lived in the eighteenth century, a period marked by the Enlightenment, rationalist ideals and a belief in the triumph of science as *the* way forward for humanity. Kant (1965), in *Critique of Pure Reason*, tried to overcome this particular conception of empiricist philosophy. He argued that knowledge comes from experience, the result of the connecting of understanding and sensitivity. Therefore, for Kant, all human knowledge comes from two sources: sensitivity - gained from sensory impressions - and understanding - which our cognitive faculty adds to, over time. By sensitivity, objects are given to us and, by understanding, objects are thought. Hence, human reason is active and generates concepts, but, there are also sensory impressions, which, through concepts and judgments, are transformed into objects. Furthermore, according to Kant, sensitivity is the ability to receive representations of objects by how they affect us. Intuition is the way we refer immediately to objects and serves to mediate all inferential thought. Sensitivity produces sensory intuitions, understanding produces concepts and reason produces ideas. The concept of ‘representation’ is central in Kant and will be considered later in the work of other prominent thinkers we have included in this generative overview of major ideas relevant to the development of environmental education practice and research.

Kant's ideas were greatly extended by Schiller, another German philosopher, also from the eighteenth century, whom with Dewey, Smith (2005) refers to in his meta-review of trends in aesthetic education. According to Rosenfeld (1991), Schiller clarified many concepts that Kant had explained only sketchily. Kant’s approach had described rigid and autonomous concepts, while Schiller conceived a dialectical and historical significance attached to them. Thus, Schiller (1967) realized that sensitivity and rationality were balanced, mutually acting. While Schiller was greatly influenced by Kant, there is a fundamental issue of the underlying designs of aesthetics that differentiates them: Schiller understands the aesthetic as a mode of rationality. This view conceives aesthetic *value* as a form of cognitive education. Thus, unlike Kant, for Schiller the aesthetic dimension is directly linked to the moral dimension, which makes the aesthetic field an "educational and political praxis" (Rosenfeld, 1991, p. 21, our translation).

The concept of *being in the world* is fundamental in Merleau-Ponty's phenomenology and ontology and it differs from the idea of 'correspondence' and representation proposed by Kant. When we speak about representation, we are referring to an aesthetic object that is seen by the subject and thus to the subject-object dichotomy and the passivity of the subject to the object. For phenomenologists, by contrast, we are the world, we are flesh of the world (Merleau-Ponty, 1968), in a relationship in which the object of contemplation is open to us and we open ourselves to the object, "because here is the proper world as a real spectacle that is: present and not represented" (Dufrenne, 2002, p. 62, our translation).

Agreeing with aspects of Kant (1965), Dufrenne (2002) asserted that in aesthetic experience *feeling* is the principle of aesthetic judgment; whereas, "during the judgment of knowledge, intellect governs the imagination, during the aesthetic experience, the imagination is free and we experience the free faculties and their harmony more than its hierarchy" (p. 40, our translation). However, Dufrenne goes beyond defending the reflective consciousness of aesthetic experience. Indeed, for this philosopher, the beautiful awakens both sensitivity and intelligentsia. Dufrenne (2002) stated that the vocation of the aesthetic object is not to please, because it would then be judged according to our subjectivity. What is beautiful asks to be noticed, to be experienced, and it fulfills its destiny by evoking free agreement between the sensible and the intellect. And this intellect appears in aesthetic experience because *disinterested contemplation* is incomplete: "The viewer does not operate fully this natural reduction that is the aesthetic attitude; he cannot parenthesize his spontaneous belief in the world" (p. 63, our translation). This author, from a phenomenological perspective, believes in the 'correlation' between subject and object. This means that "it is not only the subject that opens himself up to the object or transcends it, but, also, something of the object is present in the subject before the whole experience ..." (p.87, our translation). Hence, there is no aesthetic perception without an intentional and reflective component.

Dufrenne (2002) dedicated a chapter to the aesthetics of nature. He asserted that "nature never ceases to improvise" (p. 62, our translation). According to Dufrenne, the possibility of close contact with the unpremeditated sensible world awakens in us biophilic feelings, precisely because we have a common origin with the elements of nature. Bachelard (1999) and Dufrenne (2002) believe that nature is contemplated by humans even in moments of mystery, danger and fear. Likewise, Marin and Kasper (2009) believe that "what seems frightening and negative is received by the beholder as an aesthetic object, as it involves her/him in a desire to participate" (p. 275, our translation). In summary, we perceive that even so called 'violent' nature (storms, hurricanes, volcanoes) is never only tragic; it is also sublime. The consequences might be tragic. For Dufrenne (2002), it is in threatening moments that the aesthetic experience is held up to nature, as it is during the sublime that nature imposes itself.

In *The poetics of space*, Bachelard (1994) used the term *topophilia* (see also, Tuan, 1974) to designate investigations of happy images of space: they aim to determine the value of spaces possessed by humans, of spaces defended against adverse forces, the beloved spaces. According to the author, we carry with us memories of the places we inhabit and this is reflected in our values and in the creation of new meanings. Bachelard (1994) pursued a philosophy of poetry against the dominance of Cartesian rationality. This thinker considers imagination to be the greatest power of human beings. According to him, imagination detaches us from the past and reality. It opens us to the future. We believe that understanding the temporal relation between subject and living space allows us to interpret the aesthetic values attributed to nature.

Clearly, a central idea of phenomenology emerges that matches hermeneutics: the pre-reflective or pre-understanding knowledge, which is discussed by Merleau-Ponty and reiterated by Gadamer. If we are in the world and we know we are in the world, we have a

perception of this world even it is thoughtless awareness. Thus, we have a pre-reflective consciousness of the world and of our own lives, a consciousness that is also intentional. This level of individual experience is prior to language, it does not begin and it does not end in language, yet it is sensitive and reflects our involvement with the world. Hence, the contemporary accounts of the correlational or correspondence problem, touched on above. For Merleau-Ponty (1968), this conception is crucial because a philosophy of reflection, if it is not to be ignorant of itself, is led to wonder about what precedes it, about our contact with being within ourselves and outside ourselves, before all reflection.

As stated by the thinkers referred to above: there are variable degrees of correlation between the subject who turns towards the aesthetic object and an aesthetic object that shows itself as a phenomenon to the subject. According to Capalbo (2008), in this correlation, consciousness captures the key attributes of meaning generation:

Thus, the essence is formed by consciousness as meaning, that is, consciousness gives meaning to the world, it is the source of all meaning, it is meaning-giving, making the world appear as a significant phenomenon to the consciousness (p.128, our translation).

So, what is expected in phenomenology is the (problematic) task of an unveiling and disclosing of the 'essence' of consciousness; in other words, the meaning of a phenomenon. Capalbo (2008) states that intuition is a pathway to reach the evidence of a phenomenon. Through it, we perceive colors, sounds, smell and senses as intelligible essences, but they are not built on an intellectual level. Again, we have the idea of pre-reflective consciousness: the lived experience defines the attribution of meaning before we can start talking about it explicitly in language if, indeed, that is possible in some instances. Therefore, comprehending meanings does not primarily understand what the words mean, but what experiences mean (Matthews, 2010). According to Matthews (2010), we cannot completely withdraw from the world, but we can loosen our ties and abandon or 'bracket', at least temporarily, our theoretical structures of the world to understand better the meanings of these structures. This is exactly why there cannot be a complete eidetic reduction. From this, it follows that our being in the world has a situated existence, ie, the phenomenon occurs in perspective. Capalbo (2008) makes it clear that this meaning is not the result of subjectivism and does not sink to relativism. According to this author, the 'essence' of the phenomenon is understood "from a place and a point of view that can be lived and experienced by any individuals who position themselves in this place and with this view" (Capalbo, 2008, p.134, our translation). Thus, the significance of the experience is intersubjective and, for Capalbo, universal, since it can be dialogued, experienced and understood by other subjects.

Perius (2008) argued that in the philosophy of Merleau-Ponty, the only way to an aesthetic project is through a phenomenological project. This means that the aesthetic event goes beyond the description of the world lived through the imagination. From the perspective of this philosopher, philosophy, aesthetics and phenomenology serve to understand the world and how things are named.

Taking a similar approach to that of the above thinkers, Gadamer (1997) criticized the rationalist tradition of assigning as true only what comes under the domain of science. For him, there are other experiences of truth, such as history and art. In *Truth and Method*, Gadamer (1997) brings the contribution of Kant to bear on the concept of aesthetic experience, since art was not conceived as truth. In Kant, aesthetic enjoyment enables *disinterested pleasure*, but it does not provide new knowledge. The author is opposed to

Kant's subjectivism of aesthetic contemplation that does not give us understanding. According to Carvalho, Grun & Avanzi (2009), "the museum itself is viewed with some suspicion by Gadamer, since it separates the artwork from everyday life and, moreover, it is seen as timeless" (p. 103, our translation).

Gadamer (1997) uses a metaphor about artwork in which a game is analogous to the experience of understanding itself. The experience of art requires a launch into the game, of which we, as spectators, are part, as we are part of the world of our experience. We do not control the game, just as we do not control the world. From this metaphor derives the idea that we are part of the world, there being no dichotomy between subject and object. Carvalho et al. (2009) applied this idea to the human-environment relation: "we cannot or should not try to control it. The environment is part of the world of our experience" (p. 103, our translation).

The 'game' to which Gadamer referred (1997) has no interest or purpose; it is just there to be played. We are players and we play and are played; the game takes place and changes without our control. We can give it pace and style, but we cannot dominate the events. Carvalho et al. (2009) apply this metaphor of Gadamer to the field of environmental education to propose the notion of landscape:

Grün (2005) proposed that we understand the aesthetics of nature from Gadamer's conception of a work of art. Like the artwork, nature is an invitation to embark on a game within an environment that offers us experiences leading to the construction of possible new understandings of the world. For him, "it is in this space that we can get rid of habits that have previously determined our attitude to nature" (p.5, our translation). The author argues that Gadamer's aesthetics depends on the notion of presentation: nature is not passive, but presents itself to be understood. In hermeneutic experience "the thing itself invites us to speak of an event, its activity" (Gadamer, 1997, p.485, our translation). Understanding the thing occurs when there is respect and dignity for the aesthetic object and thence emerges the otherness we are seeking to know.

The concept of otherness and the dignity of things leads Gadamer (1997) to argue that things are not entirely at our disposal. In this sense, the thinker criticizes the term "nature of things" and proposes the term "language of things", which refers to the idea of otherness, of listening to and dialogue with things. It is by accessing the language of a thing, in this case - nature - that we understand its dignity and learn to respect it in its diversity (Grün, 2005).

Informed by Schiller and contemporary hermeneutics, Quintás (1992) proposed *games* are reality-integrating spaces where binding processes and the creation of meaning occur. For this philosopher, the task of art is to shape the features of reality, which can be everyday spaces (school, home, landscape) or events (a sunset, a clown, an elder who meditates), ie to integrate the spheres of reality: "The aesthetic game, like all authentic games, not only mimics the real; it creates scopes and produces meaning" (p.19, our translation). For the author, the formation of our values, ethics, respect is the result of a confluence of several realities that dialogue, mingle and create meaning. Through this creation of meaning, we do not reduce the reality, but we see the full complexity of the world. From this, the author clearly associates ethical and aesthetic values. Thus, for Quintás it is necessary to get into the game, which is an encounter and creation of a place of meaning. According to Quintás, being in the game is to assume a receptive-active stance. The human environment is not composed of objects for our manipulation and domination, "but of realities able to play the game with us and establish stronger neighborhood relations, closer community ties" (Quintás, 1992, p. 246, our translation).

From what has been presented above, Dufrenne, Bachelard, Merleau-Ponty, Gadamer and Quintás converge when thinking about an ontological approach to aesthetics: all of them believe that there is no dichotomy between subject and object and that there is a reflective

consciousness in aesthetic experience. This ontological view of the nature of reality of aesthetic experience lies within the hermeneutic phenomenological perspective.

A number of prominent European philosophers, used by Brazilian researchers (Carvalho et. al, 2009; Grün, 2005; Marin & Kasper, 2009; Marin & Lima, 2009) have thought about the study of aesthetics. Those authors have been influencing the hermeneutic phenomenological approach in Brazil. The historical review of aesthetics and education seems useful for reframing the research and practice in a more ecocentric view. Some of those authors have not been considering the materiality of non humans, hence the current theory of eco/soma/ corporeal turn - for example, Ingold (2000), Shusterman (2008), Braidotti (2013), Payne (2013) - shed a new philosophical and methodological possibilities to environmental education. In the next section, we will articulate their key concepts and the aesthetic dimension that we advocate as effective and significant for critical environmental education. In this way, we will outline our own thoughts of aesthetics experience in nature that is also based on Brazilian “geo-epistemology” (Canaparo, 2009).

Why this perspective of an aesthetic experience in environmental education?

We reconsider the central concepts of this European philosophical stance and the relevance of aesthetic experience to critical environmental education, as we understand it within the Brazilian context of hermeutic phenomenology (Capalbo, 2008; Carvalho et. al, 2009; Grün, 2005; Marin, 2006). Although influenced by English – speaking authors, we interpret those thoughts within the current realities of critical pedagogy (Freire, 2005).

Our initial experience of the world is always sensory, perceptual and is affectively ‘emotional’ in feeling. All precede language: affect is also and often pre-reflective, a key concern often invisible or absent in educational inquiry (Marin & Lima, 2009; Payne, 2003). This realization leads, inevitably, to how such pre-reflective experience can be interpreted and represented in research of an educational type, thus invoking fundamental questions about the methodological importance and intrigue of ‘non representational’ (Thrift, 2008) and post-phenomenological speculative inquiry (Sparrow, 2014) within the ‘affective turn’ and aesthetics of environmental education. According to Payne (2013), for research, inclusion of this eco/soma/aesthetic notion of pre-reflective consciousness is fundamental to our experience, perceptions and sensation of environments and natures, because it ontologically cannot be excluded ‘ecologically’ from any epistemological orientation or methodological deliberation. This requires research to deepen the ontological meaning of experience as it is held in tension with epistemologically constructivist layerings of knowledge acquisition and ‘cognitive’ development. This tension invokes a investigation into how our bodies interacting relationally in the lifeworld are complicit in the generation of meaning, or somatic understanding or embodied knowing, presenced and non-presenced, visibly and invisibly located in space, time and place and how the meaning of that experience is then socially, ethico-politically and culturally-ecologically constructed (Payne, 1999). Here, Ted Toadvine’s (2009) meta-phenomenological questioning of ‘what is the nature of experience?’ and ‘what is the experience of nature?’ and ‘what is the relation between experience and nature?’ as might Trigg’s (2012) questioning of the ‘memory of place’ and ‘place of memory’ and their recursive intersections becomes crucial if, indeed, the importance of a politics of ‘ontological ethics’ (Grosz, 2004; Law, 2004) is needed to underpin the typical ‘epistemological ethics’ so heavily privileged in the anglo-North/West.

After this ‘first’ ontological and pre-reflective experience of nature and relations with it, we may well build a reflective awareness of the world. According to Capalbo (2008),

reflective consciousness can be naive or critical. Here lies one of the greatest contributions which can be offered in support of educational processes. Paulo Freire, very well known in the western/anglo world for his *Pedagogy of Oppressed* (Freire, 2005), in another important book *Pedagogy of the Heart* (Freire, 2007) emphasized the nurturing of curiosity as providing a pedagogical opening for revealing our sentiently conscious body to the world so as to understand it better. Curiosity, according to Freire, is a willingness to challenge ourselves in the face of things, facts and phenomena, prettiness and ugliness, and willing to understand and seek the reasons for the facts. Then, Freire speaks of aesthetic curiosity:

There is another way to immerse ourselves pleasurably in a challenge. It is a matter of aesthetic curiosity. It is what makes me stop and gaze upon the sunset. It is what detains me, lost in my contemplation of the speed and elegance with which the clouds move across the blue sky (Freire, 2007, p. 95,96).

For Freire (2007), aesthetic curiosity is naive, but may become a more ‘meaningful’ form of epistemological curiosity when individuals adopt a critical-reflective position. Freire commented that the educator's role, in this case, is to challenge the naive curiosity of the student, to share criticality with him. Likewise, in addition to the educational quest for reconnecting humans and nature via environmental education, one critical task is to unveil the perceptual complexity of various environmental designs and their geo-epistemological and socially/culturally constructed issues (and problems). We are arguing the crucially important role of eco/soma/aesthetics and aesthetics-ethics and their normative implications for ecopolitics following Payne's call for them to be conceived ecologically as a triad of interests and concerns so we can have an effective posture within the ecological/environmental *and* educational debates. Hence, the ‘normativity’ of ‘affect’ and politics of non-representation emerge as fascinating research questions, as well as methodological deliberation, in relation to environmental education purposes, processes and practices.

According to Duarte Jr. (1988), at this normative point of this contribution, the problematic dialectic between what is felt and what is thought is ‘more’ complete, but the ‘correspondence,’ some might seek will remain elusive for all the reasons we have alluded to about ‘representation’ made in the ‘speculative realism’ (and object-oriented ontologies) movement in philosophical thought (for example, Bogost, 2012; Harman, 2005; Sparrow, 2014), as well as ‘new materialisms’ (for example, Coole and Frost, 2010) and ‘imaginative realisms.’ On the latter, here in ‘Latin America’ (Canaparo, 2009), we are indebted to the ‘magical realism’ literary legacies of, for example, Gabriel Garcia-Marquez and Jose Arguedas whose ‘ecopoetics’ have been translated into English and sit neatly alongside the textual representational efforts of Leopold, Abrams and others. For Duarte Jr. (1988), the representational and methodological reflection in and of experience is one of the potential pedagogical roles of the aesthetic object, because it helps enhance our interpretations and understandings of the world and enables relationships with others, despite the aforementioned non-representation problematic of ‘affect.’ Thus, the pre-rational/dicursive or corporeal aesthetic experience of nature enables and ‘opens up,’ at least, discussion on the difference and otherness of ‘meaning-generation’ and ‘making’ of (environmental) ethical valuing and values (Payne, 2010). Indeed, this is a potential ecopedagogical pathway to be taken by environmental education that researchers can usefully study. To reiterate, many pedagogical/curriculum activities in natural environments (or that refer to them) such as experiential learning, field trips, site studies, laboratory tasks seem to normatively reinforce the dichotomy between human beings and nature. Including richer moments and ‘movements’ of eco/soma/aesthetic enjoyment so as to (re)vitalize and animate the curiously critical consciousness of subjects as objects is to question common sense and habit and many other given assumptions and truths conventionally constructed into the discourse of environmental education and its research.

Another essential point to emphasize from the above summaries is the question of intersubjectivity and the intercorporeality of bodies, things and objects and their normative role in aesthetic experiences, pedagogies and research. From the preceding review of the aesthetics of nature and role of hermeneutic phenomenology, we have seen a range of ideas that emphasize we are already ineluctably beings-in-the-world in relationship with other beings-in-the-world. Our existence is not isolated, not fixed as Dewey argued and certainly not static - our experience is always flourishing ecologically in relation to objects, other material selves and things. The meaning that our being gives to a phenomenon emerges within an intercorporeal dimension of existence and, since we are in a constant search for new intersubjective meanings (Capalbo, 2008), we believe the eco/soma/aesthetic perception and reanimated 'enjoyment' of vital nature is a chance to begin a dialogue about other ontologically rich ways of relating to the environment. The partial correlation or correspondence between subject and object, proposed by (eco)phenomenology, opens to us a pedagogical possibility of (soma)aesthetic experience of nature and its various environments. As we have already said, the subject (in bodied here/now) opens her/himself to the aesthetic object (out there), which in turn, shows itself 'more openly' to the feeling subject/self. For Duarte Jr. (1988), the viewer 'completes' the aesthetic object on attributing meaning to it and it is an invitation to feel and know ourselves as human; and knowing ourselves as 'wild/more/other-than-human' (Abram, 2010) and, potentially, (post)human animist (for example, Braidotti, 2013) means to realize our ontological connaturality with nature.

The processes of generating meaning, valuing and, inevitably, formation of values, the fruit of lived experience, in this proposed interpretive case of eco/soma/aesthetic experience, is another prominent theme in our perspective. In the same sense, Freire (2007) stated that the intentionality of consciousness does not end in rationality, i.e., like a totality - reason, feelings, emotions, desires - that my body, aware of the world and me, captures the world that it intends to. In arguing that the (un)intentionality of consciousness is not reducible to rational experience, we are proposing that the aesthetic experience with, in and of nature has a deep relation with the values inevitably assigned to it, invariably through epistemological and pedagogical means. But, equally so, we are concerned about the imposition by teachers and the curriculum of certain 'values' on the experiences of learners (for example, Payne, 1998). This 'critical pedagogy' imperative (Fien, 1993) justifies the concern with educational activities that provide eco/soma/aesthetic experiences, so we can understand the (non-human) 'otherness' in the world of things and objects, partially understand it and respect it. In the words of Duarte Jr. (2009), "aesthetic experience prompts a change in the pragmatic way of perceiving the world" (p.33, our translation).

In summary, the eco/soma/aesthetics notion of the somatic understanding or embodied mind in experiencing nature in environmental education is (un)timely in environmental education research at both conceptual and methodological levels and layerings of experience (Payne, 2013). This 'othered' perspective departs from the representative approach (Kantian inspired) and the mind only correspondence and correlational view of self and nature (widespread in the *Journal of Aesthetic Education*). According to Payne, there are many studies in education (environmental, outdoor, physical, health) that have focused on a limited notion of experience, but not the bodied-temporal-spatial and 'affective' nature of the lived experience and its complementarities with the deeper experiences in different modalities and circumstances of 'movement' in nature's affordances. This kind of investigation demands that ecopedagogues and researchers ask dramatically different questions that seek out the dynamic roots of our still remnant vital, animate and 'animal' experience if, indeed, lived nature of human experience is to have much relevance to the aspiration of environmental education.

Payne (2009) stresses the need for ‘commensurability’ of the research in environmental education: if we have a deep research question like Toadvine’s what is the experience of nature and Triggs what is the memory of place, as checked by each statement reversed and then intersected, we need to develop additional theoretical notions and methodological strategies to grapple with this question in ‘applied’ fields like environmental education and its research. Then, there persists the beguiling question of the (non)-representational problem of environmental education research. Numerous examples from within the field were cited in the introduction. McKenzie, Hart, Bai & Jickling’s (2009) volume includes a number of examples of how ‘positioned’ researchers are interpreting and representing the subject/object of their respective inquiries. Payne’s (2013) four sequence ‘narratives’ of ongoing encounters with kangaroos pays earnest attention to ontologically ‘representational’ themes like intercorporeality and the sensorium, in particular episodic time-space, movement-presence-absence but also critically ‘contextualizes’ these narratives historically and contemporarily in ‘the Anthropocene’ consequences of anthropogenic global warming and climate change. Hence, a critical ecophenomenology, or critical ecological ontology for inquiry that is responsive to the ontology-epistemology tension *before* but in commensurable with methodological deliberation. What we are arguing is the need to reframe hermeneutic phenomenology in a more ecological and geo-epistemological theorization within the field of environmental education research. From this, we consider as pivotal to bring to discussions new theories and authors that still have an interpretive perspective of investigation, that acknowledges the normative vibrancy of a wider range of conceptions of human and non-human nature and their enacted and entangled agencies (for example, Barad, 2007) as they might then be interpreted ‘differently’ in educational research (for example, Jackson & Mazzei, 2012). Thus, from a ‘post-critical’ view of environmental education research and ‘seeing ourselves within it’ (Hart, 2005, 2013) consistent with the quest for an eco/soma/ethics-environmental ethics-ecopolitics grounded in the ontology-epistemology-methodology triad of inquiry, we encourage framings and strategies of research that might helpfully pose and probe ‘other’ research questions and their coherences with theoretical conceptions, the context of research and the approaches to ‘data collection’ that establish a degree of representational legitimization. For this to occur, intellectual (re)sources outside the discourse of environmental education are, increasingly, crucial if we are to partially move in a ‘post-critical’ environmental education research direction – albeit in a non anthropocentric/ecocentric, affective, posthuman, new/critical materialism, speculative/imaginative realism, non-representational ‘manner.’

For example, Ingold (2000, 2011) in his ecological and experiential anthropology, discusses *movement* in the perception of nature: “we do not perceive it; we perceive in it” (Ingold, 2011, p. 138). Thrift (2008), following the somaesthetics interest, picks up on movement as ontologically it applies or is always lived in presence and the present, as Payne’s kangaroo narratives attempt to represent ‘literally,’ notwithstanding the severe limitations of language and text he openly acknowledges in the representational/legitimation demand for academic work. This conception of movement as ontologically prior to epistemological representations has enabled, for example, the development of new approaches to theoretically informed methodological development about ‘mobility.’ Ingold and Vergunst (2008) focus on *walking* to better understand the variety of embodied meanings. Another movement/mobility strategy is what Pink (2009) entitles *sensory ethnography*. She discusses plenty of examples of corporeal practices concerned with mainly smell, taste, touch, hearing and vision, reiterating the sensorium and Abram’s (1996) view of ‘synaesthetics’ where the senses are, indeed, ecologically interconnected and interrelated, not disaggregated as we are led to believe in the western scientific mindset to which phenomenological, hermeneutic phenomenological approaches and ecophenomenologies are poetically ‘other.’

Closing Thoughts

One of the crucial issues raised in environmental education is how to deal with the construction of a new way of thinking about nature. We have outlined a notion of eco/soma/aesthetics we feel adds richly and deeply to the possibilities of (eco)pedagogy, curriculum, policy and research. We have built our preliminary case on a historical overview of the main influential European contributions to the study of aesthetics and hermeneutic phenomenology to argue they are insufficient for environmental education research and practice. We have contextualized our development of eco/soma/aesthetic in various geo-epistemological ways given our current situatedness and positioning in environmental education. We have linked our positioning to the notion of aesthetics education; it also being insufficient. (Re)thinking about our vital relations with the othernesses of our 'own' human being and other animal living and animated non-living beings and things creates a different sense of, and approach to, the questions of aesthetics, of ethics, and of politics. We consider that one of the ways to be critical is to be in favor of the oppressed (Freire, 2005) according to this philosophical movement that includes non human beings. Thus, to be normatively critical is to not only incorporate an aesthetic/affective component of our being and becoming, but to emphasize its potential components within the ethical and political dimension of environmental education. We need to know clearly for whom we are positioning ourselves. By drawing attention to contemporary studies of the 'turns' in ontological/corporeal and ecocentric perspective of lived experience, we might advance traditional theories used in environmental education and overcome some of their associated methodological limitations.

Addressing the aesthetic experience from an ecological starting point in a normatively reflexive manner, in this instance, lends itself to a hermeneutic ecophenomenological perspective. We believe this approach to framing 'education' and 'research' will make a valuable ontologically aware contribution to the epistemological constructions of a new, bodied, vital, material and thingly environmental education. Here lies the role of educator to guide this process further. We, environmental educators, are guides of this process, tasked with transforming and transpositioning the aesthetic curiosity found in epistemological curiosity into forms of praxis and its associated demand on reflexivity (Freire, 2007). We, therefore, remain alert to the metaphor Gadamer (1997) uses for interpretive purposes, as already outlined: if aesthetic experience is a game that we cannot control, then we ought to, at least, provoke these possibilities in our environmental practices. Our provocation is the eco/soma/aesthetic experience of nature as it might ontologically-epistemologically be revealed methodologically and non representationally in modified ecophenomenological hermeneutics. We recommend the development of further empirical and theoretical investigations to open up the comprehension of the nature of soma/ecoaesthetic experience.

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SEÇÃO 3- ARTIGO 2



Figura 1: Tirinhas de Armandinho. Autor: Alexandre Beck/ 2013.
Fonte: <http://tirasbeck.blogspot.com.br/>

Philosophical hermeneutics and critical pedagogy in environmental education research and practice

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Philosophical hermeneutics and critical pedagogy in environmental education research and practice

Abstract

The contributions and challenges of Gadamer's philosophical hermeneutics and Freire's critical pedagogy to research and practice in environmental education (EE) are considered. We present the authors' main concepts and relate them to the principles of critical EE that have guided our work in Brazil. Although, a raft of current theories are questioning the pivotal role of language, our purpose is to present a critical dialogical perspective that could be developed in particular contexts. The respect for the otherness of nature implicit in this process can lead to the recognition and acceptance of our own selves and new forms of solidarity and respect for others. Our interpretive-pedagogical approach informs some of the underlying principles of the critical within EE and its research.

Keywords: hermeneutics, critical pedagogy, critical environmental education, Paulo Freire, Hans-Georg Gadamer.

Introduction

There has been longstanding debate about environmental education (EE) being in, about and/or for the environment. Fien (1993) described the nature of ideology critique of the knowledge interests of the field. Robottom and Hart (1993) described three paradigms for the field of environmental education research: postpositivism, interpretivism and critical theory. Gough (1993) outlined how poststructuralism might influence inquiry. Payne (2009) advocated for a 'humanly constructive' ontology and phenomenology of environmental education to underpin the socially-critical epistemological perspective of Fien, Robottom and others concerned about praxis. Russell and Hart (2003) explored the emergence of new genres of inquiry in environmental education research. Sauvé (2005) identified 15 curriculum and pedagogical 'currents' in environmental education. Reid and Scott (2006) analysed articles published in the first 10 years of *Environmental Education Research between 1995-2004*. They concluded that the complexity of the field increased.

Payne (2009), writing for the Brazilian journal *Pesquisa em Educação Ambiental* asserted that the configurations of pedagogical practices and research on EE in the anglo-speaking world are, indeed, complex, notwithstanding such diversity cannot be assumed, or totalized, as relevant for "other-than-anglo" cultures following, for example, Canaparo's postcolonial notion of the 'geo-epistemology' and its sourcing in Latin America as a 'location of knowledge'. Gonzalez Gaudiano and Lorenzetti (2013) highlighted the "critical-transformative environmental thinking style" in the junctures and disjunctures of environmental education research in Latin America.

With these broad trends and tensions in mind, this paper presents another reinterpretation of environmental education as one requiring framing in 'other' political and social contexts, such as Brazil whose geo-epistemology and cultural-geographic background, including its military dictatorship between 1960s and 1980s. Even in Brazil, however, this geo-epistemological framing defies consensus as there are a diversity of environmental education perspectives (Layrargues, 2004). Following Payne (2009), the generic notion of 'framing' is gaining momentum as environmental education researchers are invited to carefully consider the critical nature of their research problem, questions, purposes and rationale but also the congruence, commensurability and coherence of their research plan and its positioning geographically and linguistically/culturally.

Any geo-epistemology is historically shaped ontologically and epistemologically by the enigmatic flux over time-space, and "place memory" (Trigg, 2012) of an even mix of demographic, geographic, historical, linguistic, social, technological, cultural, global and ecological factors (Payne, 2009). An Amazonian geo-epistemology is different to its counterpart in São Paulo, or the coastal regions of Brazil. These factors influence the ways of a specific culture, community or group, and cannot be separated from the land, territory and space in which that geo-epistemology has been locally, regionally (or socio-ecologically) created, developed, and established (Canaparo,

2009). Araújo-Oliveira (2014), Dussel (2000), Iani (1993) and Santos and Meneses (2010) have already argued for acknowledging the social and historical particularities in Latin America in order to advocate comprehensions, criteria and methods for their own framing.

Canaparo (2009) defines the space of Latin America as *frontera* – as a front line, as a limit, as a border line and as a peripheral part or dimension of the otherwise imperial and colonial of conceptions and constructions of Western/ European space-time. Beyond the factors listed above, two geo-culturally distinctive processes have greatly shaped the emergence of Latin America as a locale of knowledge and the way environmental education can, potentially, reframe its preferred approaches to inquiry and interpretation: a) the military dictatorship in the sixties and seventies in many latin-american countries and, in parallel, the contributions of classical authors who have influenced the sociological and educational thoughts in that period, most of them Marxists (Dussel, 2000; Freire, 2005; Leff, 2008) and b) the continuous processes of immigration and emigration, including colonization (Canaparo, 2009) and its reshaping in the scientific and epistemic field (Santos & Meneses, 2010).

Nowadays, all of the aspects of what we understand as culture in the anthropological sense in Latin America are affected by these two distinctive features, a situation that has not always been fully considered as relevant by the authors and critics of colonialism and the post-colonial situation. The dictatorship and colonization (and we might say the dictatorship was a kind of colonization as well) influenced and are still influencing the research and practice in education in Brazil, as pointed out by Oliveira (2008) who mapped the influences of this specific context in the convergence features that can be found in Brazilian popular education and environmental education movements. Paulo Freire, one of the most important (Puiggrós, 1994) and well known Brazilian educator wrote in his exile many of books during that period and, so, it was in this context that the educational proposal in which the relation between “oppressed and oppressor” is taken into account and the “banking” concept of education was developed.

In Brazil, environmental educators typically take a position between two of the main political and social currents of environmental education (Czapski, 2008): the conservative and the critical. The first, based on a reductionist worldview that leaves out the complex relationships among different aspects of the environment, results in an individualistic and behaviorist pedagogical practice, which tends to prioritize the cognitive dimensions of the educational process, the transmission of ‘environmentally friendly’ knowledge, the authority of the rational over emotional interests, theory over practice, knowledge divorced from reality and the technical over the socio-political dimension. This conservative, positivist, cognitivist and behaviorist epistemology and pedagogy is well known in the anglo-west and has attracted a considerable amount of critique, over the past 30 years, particularly from those authors whose critical contributions introduced this article. On the other hand, anglo-western scholars in environmental education have only sporadically drawn on Freire’s critical theory (Kahn, 2009) despite greater attention in general education theory (McLaren & Kincheloe, 2007).

Critical environmental education promises profound changes in society (Carvalho, 2006; Guimarães, 2004), because it is committed to significant transformations of socio-environmental reality through praxis, in which creative thinking and practice complement each other to build a new understanding of the world, in a process experienced by the subject in relation to the collective and to the world, so that the subject and society are mutually transformed (Guimarães; 2004, 2005). Currently, with the elaboration of theoretical and methodological EE fields, framing an investigation or a practice as critical is not sufficient presuming the notion of critical might be based on different approaches (such as Marx or interpretative theory). Therefore, in the current scene, we need to reflect further on what it means to be critical and what our theoretical and methodological assumptions are. The approach of philosophic hermeneutics has been used in most research related to environmental perception and interpretation of the senses / meanings of educational processes for learners in Brazil (Campos & Cavalari, 2009; Carvalho et al., 2009; Grün, 2005). One of the key

criticisms of this approach is about its lack of purpose to shift the social reality, because it addresses the phenomena, ie, that which currently manifests itself in place, and not incorporating the historical facts or objective realities of that phenomenal/existential place, such as the military influence and immigration/emigration/ colonization issues outlined above. Moreover, research and practice on EE based on dialogic pedagogy of Paulo Freire are still very popular in Brazil (Avanzi, Carvalho & Ferraro Júnior, 2009; Logarezzi, 2010; Pato, Sá & Catalão, 2009; Reigota, 2007). Paulo Freire was influenced by different theories, so his production is extensive and presents distinct aspects according to the period of his life (as we explain later), resulting in diverse possibilities of approaches with other authors. For example, some research groups in Brazil gather Freire and Dussel (Oliveira & Sousa, 2014) or Freire and Habermas (Logarezzi, 2010). As we engage Gadamer, for different reasons outlined below, and Paulo Freire in discussion, we believe that the critical environmental education should aim to provide a deeper dialogical reading and understanding of a more complex world, contributing in the process of transformation of a reality that historically places the self within a social and environmental crisis. Kincheloe and McLaren (2002) have already written about the insertion of a critical theory into the hermeneutic circle towards a critical hermeneutics in order to grasp our lived experience within the cultural structures in which we are immersed. Hermeneutic phenomenological approaches give us pedagogically tactful thoughtfulness: situational, perceptiveness, discernment, and depth of understanding (van Manen, 1990), which is fundamental in a country as Brazil. From the hermeneutic understanding generated, we might better seek the transformation of the subject (Freire, 2005), enhancing the 'humanly constructive' action of social actors (Payne, 2009) by caring for the needs of all species, and by speaking out and acting against social and ecological injustice (Fien, 1993). Thus, this article outlines some of the key contributions of Gadamer's philosophical hermeneutics and Freire's critical pedagogy to practice in EE, within a dialogical-critical perspective as a possible pathway.

Gadamer's philosophical hermeneutics

Gadamer is rarely considered in Anglo-western theories of environmental education and its research. Sammel (2003) argues the key contribution that hermeneutic phenomenology has provided (in Gadamerian perspective) is to understand the gap between meaning and action educators assign to critical environmental education.

Gadamer (2004) questioned the authority of the scientific method as providing the only way to reach the truth. One of Gadamer's most important contributions to philosophical hermeneutics was the broadening of the concept of interpretation beyond the search for the meaning of words, and into the question of understanding in itself (Lawn, 2006). According to Gadamer, all human understanding is interpretation, since it is impossible to separate the subject from the world (object), given that the world is seen from a particular human perspective (Lawn, 2006). Thus, hermeneutics is present in all human experiences in and of the world, whether scientific or not, so that, beyond the scientific method, there are other ways of knowing reality, such as through art and history (Gadamer, 2004). According to Gadamer (2004), as our search for truth occurs on the horizon of any tradition to which we belong, so that our historicity is the condition of our understanding. Thus, the identity of a subject or a group of people is socially and culturally constructed, intimately connected to the past. Tradition is a specific cultural environment in which individuals belong. History can condition us, but it cannot always constrain us, making transformation possible (Lawn, 2006). As we belong 'ontologically' to any epistemological and methodological tradition, we inherit pre-existing prejudices and pre-understandings of the world we inhabit. But this embedded and embodied pre-understanding does not retain a rigid, fixed and unchanging validity; it is enhanced and modified by newly acquired knowledge and new meanings (Testa, 2004).

From their historicity in relation to the world, traditions and prejudices, each person has a horizon, which, according to Gadamer (2004, 301), "... is the range of vision that includes everything that can be seen from a particular vantage point. However, the horizon is not fixed, but in a process of constant shaping as we face our prejudices (Testa, 2004; Gadamer, 2004).

Understanding occurs when one horizon is placed in contact with another and there is a process of fusion of horizons. Hence, understanding does not mean that an active subject projects a meaning on to an inert, dead object, or even that he abandons his horizon to surrender to that of another. Rather, subjects broaden their horizons so as to integrate each with an 'other' one, producing new meanings from the meeting of two worlds (Gadamer, 2004), so the transformation of the subject happens in relation to the other (Domingues, 2009). This fusion of horizons is only possible through language. Thus, 'being that can be understood is language' (Gadamer, 2004, 470). For Lawn (2006), Gadamer criticizes the conception of language as an instrument of thought, responsible for representing an exact image of the world or states of mind. For Gadamer (2004) language is fundamentally social, cultural and historical, the way we access the world and that, therefore, all our understanding is structured linguistically. This shift of language to the center of philosophical reflection is known as the 'linguistic turn' (Hermann, 2002)¹. This hermeneutic phenomenon exposes the intimate relationship between thought and speech. According to Gadamer (2004), thinking happens in saying (Gadamer, 2004). Language finds its fulfillment in dialogue.

Freire's critical pedagogy

Paulo Freire, Brazilian educator, devoted himself to thinking about the intersubjective relationships in the educational universe, and the dialogue as a central category in overcoming the hegemonic rationalities. Freire developed his theory based on two philosophical thoughts: the dialectic of Hegel and dialectics of Marx. The Hegelian dialectic is the consciousness of the acts, we think to act, therefore, is idealistic: the subject "I" has the ability to think about the future, to build reality and it is a process that occurs from inside (subjective) to the outside (reality). Marx extended the analysis to the social system, ie, the historical and political context which we belong determinates our thoughts and actions. Therefore, the transformation of reality would only be possible in the process from outside (social system, political, economic) to inside (subjective).

Freire combined these two ideas by proposing that people are able to transform their reality, but within their own reality and historical context. Thus, phenomenology and marxism tend to converge in Freire's theory. Apart from that, Freire developed his thoughts according to historical and political aspects, so, in Brazil, there are different views of Freire: in a *continuum*, some scholars consider Freire as a conservative and non-critical educator (Saviani, 1985) while others approach him from a postmodern perspective (Nóvoa, 1998) in order that Freirean thought is not viewed as a consensus among all Brazilian educators and researchers.

As an educator concerned with ethics and politics, Freire believed in universal ethics. However, this universal ethics must be built through dialogue, which, for him, is essential to overcome the ethical crisis of our time. Freire (2005) in his most famous work, *Pedagogy of the Oppressed*, discussed the concepts of humanization and dehumanization. He argued that we had our humanization historically stolen by social, political, cultural and economic issues. It is our vocation to be *Fully Human*, and this is done in social relations, and understanding of them. Indeed, Freire (1985, 1994, 1998, 2005, 2007), stressed the development of dialogical relationships as the way to becoming *Fully Human*. Real dialogueⁱⁱ happens in the encounter between people willing to listen to each other and express their opinions for the evaluation of the other. It is not intended to defeat a person, but to let a topic come to light, enabling participants to undertake self-reflection of their views that might then produce a new or different or 'other' concept. Thus, there is no definitive interpretation; the linguistic constitution of the world leaves it open to all kinds of interpretation, since it is linked to the vital experience of subjects and is not bound by strict methodological rules. The language characterizes all human experience in the world, because the structure of our experience is formed and transformed in it (Hermann, 2002). Here is where we most clearly see a convergence of Gadamer and Freire in the interpretation and understanding of 'relations' in time and space, and according to the intersubjectivity of their locations of living and knowing.

Although, Freire's pedagogy of oppressed is the most known work, we consider that to be restricted to this book is to reduce the richness of his theoretical corpus. In *Pedagogy of Hope*, Freire (1994) revisited his earlier pedagogy of oppressed and expanded some concepts such as consciousness and gender issue. Also, Freire (1994) commented about his participation during the construction of the *Treaty on environmental education for sustainable societies and global responsibility* (Earth Council, 1993), a key classical reference document for Brazilian environmental educators. Paulo Freire was involved with the NGOs' Treaty, bringing to discussion the importance of coupling up environmental and social issues. In so doing, we believe it is important to reclaim and restore Freire within the socio-ecological theorization and practices of environmental education, as he was a thinker who actively participated in generating one of the base documents referred to in Brazil for our EE approach. Thus, the relationship between theory and practice is essential aspect in Freire's view, i.e., action and reflection are articulated in a such supportive way, interacting so radically that if one is sacrificed, albeit partly, one resents the other immediately (Freire, 2005).

Possibilities for critical environmental education based on Gadamerian philosophical hermeneutics and Freirean critical pedagogy

As we have already pointed out, our concern was to engage two references strongly used in environmental education research in Brazil in order to contribute to an approach that covers more issues of our reality. So, in this section, we highlight some concepts which, in our view, are crucial for environmental education research and practice, discussed under the theories of Gadamer and Freire and then present how they possibly work together.

In *Pedagogy of Hope*, Freire (1994) says that nobody puts consciousness in anyone. We all have a consciousness that turns to something. What allows the learning process is a *self-awareness* made in dialogue. This is the process that Freire called "conscientization" (Fien, 1993, 73). For us, one of the tasks of EE is the critical pedagogy. To understand how the *self-awareness* (Freire, 1994) process occurs, we bring to discussion the idea of the pre-understanding (Gadamer) and critical consciousness (Freire). The pre-reflective knowledge or pre-understanding is discussed by Heidegger, Merleau Ponty and Gadamer. The hermeneutics brings the perspective of interpretation to produce meaning and the impossibility of separate subject in the world. It is the lived experience in the world which is already interpreted (van Manen, 1990). Therefore, pre-reflective refers to a level of the individual experience which is prior to language, does not begin and does not end in language, however, is sensitive and reflects our engagement with the world. We consider this especially important when dealing with environmental education, because we're talking about relationship between human being and the world, which addresses perceptions, experiences and human feelings in relation to the environment.

Freire (1998) argues that teaching is transforming learners' naive curiosity into a critical position, as a defense against the irrationalities arising from the excess of rationality in our highly technological time. In the same book, Freire goes further, saying that teaching is whetting curiosity, being willing to risk, to emancipate themselves, going in the opposite direction to the pacifying effect of 'banking education' (Freire, 2005). It is in opposition to this banking education that we believe in a critical school and education. Since to educate is a form of intervention in the world (Freire, 1998), educator and learner assume a social and political role and contribute to the transformation or maintenance of the hegemonic paradigm.

The split between culture and nature, resulting from the Cartesian paradigm, promoted the objectification of nature and an anthropocentric ethic of human mastery of nature (Grün, 2006). Some researches in Brazil (Marpica, 2008) identified that, in the curriculum, this orientation led to some 'areas of silence'ⁱⁱⁱ that sometimes amounted to a complete exclusion of the relationship of human societies with nature throughout history (Grün, 2006).

The deconstruction of subject-object, human-environment, nature-culture dualities promoted by the hermeneutic approach and the consequent understanding of human existence in a dialogical

relationship with the world (inevitable involvement of humans in the landscape) implies that understanding the world is also understanding oneself (Carvalho, Grün & Avanzi, 2009). Thus, the reflections proposed here are not about an abstract human being and not about a world without people, but about people in relation to the world, or simultaneous relations between consciousness and the world (Freire, 2005). Hence, we must discuss the relationship between human history and natural history, trying to recognize the history of the environment in our own history, and rebind environmental issues to the human action that gave rise to them (Flickinger, 1994), seeking to build a new ethic, neither anthropocentric nor utilitarian, but an ecocentric ethic (Abram, 1996; Payne, 2013). Payne (2013) adds the political and affective dimensions as an essential articulation to shift the policy and the curriculum on environmental education.

In a hermeneutic approach, EE seeks to value tradition as a way to understand the historicity of human relationships with the environment. So, EE needs to rescue values repressed by Cartesian rationalist tradition. It is in the fusion of the horizons of tradition (past) and interpreter (present) that new meaning is produced (Grün, 2006) and that knowledge and more sustainable practices can be constructed by reflecting on and questioning the human actions that led to the current environmental problems (Grün, 2006).

'Environmental Diagnosis' is a procedure, widely used in Brazil, in the early stages of the EE process, precisely because it allows a deeper understanding of the reality to be studied. It consists of an interpretation of the data collected in environmental mapping, by the people involved in the reality, on what is to be defined as problematic and what is desirable in an educational process (Ferraro Jr., 2007).

Environmental diagnosis enables the complex interaction between the cultural, social and natural reality of a given environment to be highlighted (Carvalho, 1998). One of the critical aims of EE is to build meaningful learning processes, linking previous experiences with issues and new experiences that lead to new concepts and meanings. Therefore, it is necessary to know whether the educators' proposals coincide with the students' reading of the world (Freire, 1994).

Following this approach, we must consider the social and natural history of the place where the teacher acts and students live, researching the ways of life of the region, listening to and dialoguing with those involved in local actions. This is to practice an environmental education attentive to the complexity of the relationship between society and the environment (Carvalho, 1998).

'Banking education', as defined by Freire (2005), is an act of 'depositing' established and verified knowledge: the students patiently receive the contents and amounts deposited by educators and file or memorize them mechanically. Knowledge ceases to be 'gained from experience' and becomes transmitted or narrated in a one-way relationship that denies dialogicity. This view of education minimizes or even negates learners' creativity, by discouraging their thinking and therefore their transformation (Freire, 2005).

In some situations, EE has, at least to some degree, a prescriptive attribute, characterized by a set of rules of how to behave towards the (Carvalho, Pereira & Farias, 2010). The need for this practice can be explained by the worsening environmental problems and their increasing public visibility. Critical EE is anti-normative in that it is intended to break the general and unquestioned rules prevailing in the current model of civilization. It proposes a new normativeness, based on a new ideal of civilization, which enables the subjects to draw reflectively and critically on their experiences in ecologically virtuous practices (Carvalho, Pereira & Farias 2010). The standards are defined collectively (Capalbo, 2008).

We understand one of the tasks of environmental education is to think a new way of *being-in-the-world* (Heidegger, 1962). To this end, we should think about us as historical beings, within a tradition to understand the past, present and build a new perspective for the future. Gadamer (2004, 2011) and Freire (2005) attribute a fundamental role to the history, but Freire (2005) goes further, advocating education as an essential contribution to the transformation. Thinking of history as

possibility is to recognize education is also a possibility. For him, education can not do everything, but without education we do nothing. Freire (1994) says that it is not possible to understand our relationship with nature without knowing our historical and cultural conditions. We believe one of the EE's principle is: interpret the *reading the world* (Freire, 1994) of people in all its complexity to then discuss with these people about other ways of being and acting in relation to nature.

Thus, from a philosophical hermeneutic perspective, to educate is to educate yourself (Gadamer, 2011,) and the educational process is thus a result of the subject's experience, confrontation with their own self, with their opinions and beliefs (Hermann, 2002). According to Hermann (2002), educational experience also implies opening the subject to new and unexpected situations, such as exposure to risk, so that it is impossible to define a set of practices that guarantee success, regardless of context (Hermann, 2002). This learning from experience does not mean an individualistic process; on the contrary, it happens through dialogue (Freire, 1994, 1998; Gadamer, 2011).

For Freire (1985), we need to be instrumentalized (knowledge) to transform the world (aesthetically and ethically). Freire (2005) reflected profoundly on this concept by saying that theory without practice becomes verbalism, while practice without theory is mere activism. Praxis, however, is the reflection and action of humans on the world to transform it. According to Fien (1993, 73), this is "critical praxis" - an approach to pedagogy which integrates reflection and action- and it was developed by Freire: "critical praxis views the active engagement of students in their development as an educational means towards the goals of social transformation". Also Gadamer's hermeneutics suggests a direct relationship between comprehension and application. The latter is not considered the final stage in understanding the phenomenon, but determines it from the beginning. Application consists in relating something general and previously known to the particular situation in which the interpreter is (Gadamer, 2004). We advocate Freire extends Gadamer's idea, and Sammel's (2003) article as he contributes with this political dimension of educational practices. For Freire (1985, 1994, 1998), all human action is the result of dialectical relationship between agency and structure. The "macro" structure does not shape individual actions, but it influences individual actions. In spite of recognizing the "macro" structure, the aim of hermeneutic phenomenological approach is to investigate the lived experience (van Manen 1990) in a "bottom-up" understanding.

Freire (2007) also discusses tolerance, connivance and coherence. He proposes we should not let us close ourselves in our circle of truth. We must have tolerance for understand what the others are saying, but that does not mean connivance. For him, being conniving is against of being tolerant because if we are conniving, we would have being against our principles. According to Gadamer (2004, 2011), realizing our own prejudices means not putting them aside, but put them in question. The author argues that the hermeneutic circle is an spiral event that continues to determine and form another understanding. In the same sense, Freire (1985) warns us to be open to new concepts when in dialogue.

Education consists in recognizing what is strange and making it familiar: the subject moves away from him/herself to possess the meaning of the world. Hence, training happens when the subject returns to the self from the other. Education is thus an opening for the recognition of otherness, so we can make sense of what comes from outside us, which means to understand the other and cultural knowledge (Hermann, 2002).

The dialogical 'other' of 'nature'

In EE, nature can be considered the Other that speaks to us. Like art, it confronts us and disturbs us because, although we are in constant interaction, it remains different from us (Grün, 2005). To understand nature, its otherness must be respected, which necessarily involves a sincere desire to understand it. A genuine experience of nature results in the transformation of both subjects and nature. The respect for the otherness of nature implicit in this process can lead to the

recognition and acceptance of our own selves and new forms of solidarity and respect for Others (Grün, 2005).

Authentic dialogue requires exposure of the concepts and prejudices of those involved, so that participants must be open to changing their own positions in a process of educating each other (Hermann 2002). Dialogue has a transforming force. It is successful when we gain something that changes us (Gadamer, 2004).

Hermeneutic understanding happens in dialogue with others and is only possible when there is respect for their dignity and otherness. This is a fundamental feature of all genuine human experience (Grün, 2005). Dialogue is central to Freire's perspective: 'Human beings are not built in silence, but in word, in work, in action-reflection' (Freire, 2005, 88). Here lies another key point to Freire (1994): we are never alone, we are always *With*. Freire (1994) uses capital letter to emphasize the importance of - what Gadamer (2004, 2011) entitles - the *Other*. By the perspective of an educational practice, the educator has a different role – to guide the activity - the educator is open to learn, to talk and to understand other view's worlds. This is fundamental for environmental education as we live in a world that many civilizations, ways of life and thoughts are conflicting and trying to be recognized.

To start from local reality through environmental diagnostics does not mean to deny the global. Indeed, these spheres are closely related. The hermeneutic circle assumes the existence of a constant movement between the part and the whole (Gadamer, 2004), so local situations should open perspectives for the analysis of national and regional problems (Freire, 1994). Freire (2006) comments that his conception of the world is directly linked to his backyard, his childhood and all the people he met in his life. The author highlights the specific and universal spheres by pointing out that before becoming a citizen of the world he was a citizen of Recife (his home town). Thus, the more a person is rooted in their locality, the more chance they have to globalize. Nobody becomes local from global.

Final thoughts

According to the theoretical framework used, the historical finitude of our existence entails being aware that, after us, others will come who will understand things quite differently (Gadamer, 2004). So, we should always be open to the emergence of diverse perspectives and interests in educational contexts where we investigate and act.

According to Kincheloe and McLaren (2002) the philosophical hermeneutics is concerned to the comprehension process while other scholars (framed as critical hermeneutics) displace the research to understanding of social and political relations which approaches to our purpose in this study. We also accept the limitations of dialogue and language during our attempts to grasp the reality (or realities), being restrict to some (not all) layers of reality (James, 2006), but, notwithstanding, we still encourage democratic and dialogic processes as essential towards a social-environmental transformation in realities of strong social inequality.

Our intent was to reflect on the theoretical and geo-epistemological foundations of EE practices in Brazil that have been disseminated as critical, taking the viewpoint of philosophical hermeneutics, in the belief that its distinguishing feature is the revaluation of the subjects in social transformations. Not forgetting that the structural issue also needs to be addressed, so that the role of the educators is to encourage political and ideological practice in favor of structural change. Both the EE design that values too highly the role of subjectivity in social transformations, and also that which defends only the value of the social structure, deny the true role of education: the first assigns a role that education does not have, and the second denies it any power at all (Freire, 1994). So this article extends Sammel (2003) thoughts, speaking from a different context from the geo-epistemology point-of-view. Therefore, the concept of self-understanding addressed in Gadamer associated with the concept of self-awareness outlined by Freire have an important contribution to EE research and practice in Brazil, helping us to understand the Other's view and the disclosure of

the environmental issues as a complex problem by allowing space for doubts and differing viewpoints. Also, Freire explicit clearer the role of educator of how to mediate this process and help to build a new environmental ethics. Gadamer and Freire, together, can contribute in some aspects to critical EE as Freire extends Gadamer's theory by adding a more geo-epistemologically and culturally-historically aware and sensitive political and ethical dimension.

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Footnotes

- ⁱ The excesses of the linguistic turn are now being criticized by new materialists, speculative realists, post and transhumanists, post-phenomenologists, in returning to a more object/thing oriented ontology. That Portuguese translations of these recent turns in anglo theories/philosophies is rare and unlikely to be available in the next few years.
- ⁱⁱ For Freire (1994), dialogue is a commitment with the reality transformation. Real dialogue happens when all the people involved are transformed.
- ⁱⁱⁱ Concept originally defined by BOWERS, C.A. *Education, Cultural Myths and the Ecological Crisis: Toward deep changes*. Albany: State University of New York Press, 1993.

SEÇÃO 4- ARTIGO 3

Manoel por Manoel

Eu tenho um ermo enorme dentro do olho. Por motivo do ermo não fui um menino peralta. Agora tenho saudade do que não fui. Acho que o que faço agora é o que não pude fazer na infância. Faço outro tipo de peraltagem. Quando eu era criança eu deveria pular muro do vizinho para catar goiaba. Mas não havia vizinho. Em vez de peraltagem eu fazia solidão. Brincava de fingir que pedra era lagarto. Que lata era navio. Que sabugo era um serzinho mal resolvido e igual a um filhote de gafanhoto. Cresci brincando no chão, entre formigas. De uma infância livre e sem comparamentos.

Eu tinha mais comunhão com as coisas do que comparação.

Porque se a gente fala a partir de ser criança, a gente faz comunhão: de um orvalho e sua aranha, de uma tarde e suas garças, de um pássaro e sua árvore. Então eu trago das minhas raízes criancieiras a visão comungante e oblíqua das coisas. Eu sei dizer sem pudor que o escuro me ilumina. É um paradoxo que ajuda a poesia e que eu falo sem pudor. Eu tenho que essa visão oblíqua vem de eu ter sido criança em algum lugar perdido onde havia transfusão da natureza e comunhão com ela. Era o menino e os bichinhos. Era o menino e o sol. O menino e o rio. Era o menino e as árvores.⁵

⁵ *Memórias inventadas – As Infâncias de Manoel de Barros*, São Paulo: Planeta do Brasil, 2010. p. 187.

FORMAÇÃO DE VALORES ESTÉTICOS E ÉTICOS E O CERRADO
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Formação de valores estéticos e éticos e o Cerrado

Resumo: No presente artigo procuramos aprofundar a reflexão sobre o significado das diferentes estratégias, experiências e vivências que contribuem para a formação de valores estéticos e éticos em relação ao Cerrado. A educação estética trabalha focalizando o sentir, a base para nos compreendermos no mundo que nos cerca, sentindo e percebendo os fenômenos para poder significá-los e expressá-los. Nossa investigação está dentro da perspectiva hermenêutica e a coleta de dados foi realizada através de 17 entrevistas com pessoas que tinham um histórico de envolvimento experiencial e afetivo com o Cerrado. Nos apontamentos emergidos durante as entrevistas perpassam dois conceitos que vêm sendo caros para a educação: intersubjetividade e diálogo. Essa relação intercorporeal tem a potencialidade de criar um novo senso ambiental estético e ético. Cabe ao campo de pesquisa da educação ambiental aprofundar a compreensão desse processo no nosso modelo de sociedade atual para ampliar as potencialidades transformadoras da educação ambiental.

Palavras-chave: hermenêutica, pesquisa narrativa, experiência estética

Abstract: In this article we delve deeper into the significance of different strategies and experiences that contribute to the formation of aesthetic and ethical values in relation to the Cerrado. The aesthetic education focus on the feel, the basis for understanding ourselves in the world we are surrounded, feeling and apprehending the phenomena in order to signify and express them. Our investigation is in agreement with the hermeneutic perspective and the data collection was conducted through interviews with 17 people who had a history of experiential and affective involvement with the Cerrado. In the notes emerged, permeate two precious concepts for education: intersubjectivity and dialogue. This intercorporeal relationship has the potential to create a new sense of aesthetic and ethical environment. The research field of environmental education should deepen the understanding of this process in our current model of society in order to enlarge the transformative capability of environmental education.

Keywords: hermeneutics, narrative research, aesthetic experience

Introdução

A dimensão axiológica da prática educativa em educação ambiental (EA) é concebida como fundamental para a prática educativa em uma educação ambiental crítica (CARVALHO, 2006). No entanto, pesquisas na área apontam que essa dimensão, e, particularmente, a que se refere aos valores estéticos, não vêm sendo trabalhada em atividades de educação ambiental (BONOTTO, 2008; BONOTTO, SEMPREBONE, 2010; IARED, 2010; MARPICA, 2008; TURNER; FREEDMAN, 2004; SILVEIRA, 2009; VALENTI, 2010, entre outros), tanto pela dificuldade em trazer essa questão para as práticas educativas como pela valorização do domínio cognitivo, o que acarreta um esvaziamento das práticas axiológicas (GRÜN, 1994).

A educação estética oferece elementos importantes para um vínculo afetivo para com a natureza uma vez que está baseada na descoberta da sensibilidade e na percepção da existência do *outro* (GRÜN, 2006). Segundo o autor, o *outro* é a natureza que se dirige a nós. A partir disso, percebemos o outro como parte de nós, o que vai influenciar nosso posicionamento ético diante das questões ambientais. Esse novo olhar para o mundo propõe uma nova relação entre sociedade e natureza, o que é essencial para a conservação da biodiversidade e uma das tarefas da educação ambiental. Ou seja, ao nos

percebermos como natureza estabelecemos vínculos profundos e permanentes, o que vai se refletir no nosso posicionamento crítico e ético diante dos conflitos ambientais.

As investigações sobre as experiências de vida significativas (Significant Life Experiences - SLE) são discutidas em alguns periódicos (CHAWLA, 1998) e destacam a importância das experiências vividas junto à natureza para a formação de uma ética ambiental. No entanto, a própria autora reconhece que tais estudos possuem limitações, e Gough (1999) e Payne (1999) afirmam que as pesquisas sobre SLE não buscam esclarecer o significado ontológico da experiência humana. No presente artigo procuramos aprofundar a reflexão sobre o significado das diferentes estratégias, experiências e vivências que contribuem para a formação de valores éticos e estéticos em relação à natureza, particularmente, em relação ao Cerrado. Dessa maneira, acreditamos ser esta uma contribuição a pensar trabalhos intencionais em EA voltados para a sensibilidade estética.

EA e estética

A educação estética, a que nos referimos, trabalha focalizando o sentir, a base para nos compreendermos no mundo que nos cerca, no mundo que fazemos parte, sentindo e percebendo os fenômenos para poder significá-los e expressá-los. Merleau-Ponty (2004) afirma que um dos méritos da arte é redescobrir o mundo no qual estamos e que sempre somos tentados a esquecer. Nesse sentido,

A dimensão estética que estamos considerando não é a de uma concepção restrita à percepção do belo, mas sim de toda forma de experiência que coloca o ser humano em imersão no mundo vivido e que, portanto, faz dele um ser social e participante de uma construção cultural (MARIN, SILVEIRA, 2009, p. 178).

Para Silveira (2009), a educação estética cria possibilidades: de indeterminação, de reconstrução de sua subjetividade, de pensar novos valores e novas maneiras de nos relacionarmos, ao mesmo tempo em que abre a opção de pertencimento a um contexto histórico-cultural e a um lugar habitado. Paulo Freire, em várias de suas obras, chama a atenção sobre a importância de uma educação que traga a questão estética para uma visão ética e crítica da nossa realidade. Segundo Freire (2001), “o corpo consciente e curioso que estamos sendo veio tornando capaz de compreender, de inteligir o mundo, de nele intervir técnica, ética, estética, científica e politicamente” (p.09). Logo, o autor defende que a experiência estética esteja presente nas nossas práticas educativas no sentido de não supervalorizar ou *magicizar* a ciência, ou seja, “a educação será tão mais plena quanto mais esteja sendo um ato de conhecimento, um ato político, um compromisso ético e uma experiência estética” (FREIRE, 2001, p. 55) e completa: “estética e ética se dão as mãos” (FREIRE, 2001, p. 41).

Outras/os pensadoras/es também discutiram a importância da questão estética na educação. Schiller é considerado o primeiro filósofo que trouxe essa abordagem. O autor, em sua obra mais famosa, *Cartas sobre a Educação Estética da Humanidade*, compreende a estética como um modo de racionalidade, como um valor cognitivo e educativo (SCHILLER, 1991). Isto é, a dimensão estética está diretamente articulada com a dimensão moral, o que torna o campo estético uma “‘práxis’ educativa e mesmo política” (ROSENFELD, 1991, p. 21). Duarte Jr. (1988) defende que a reflexão da experiência é uma das potencialidades pedagógicas do objeto estético, pois amplia a compreensão do mundo e possibilita o inter-relacionamento com os outros. Isto é, a experiência estética possibilita a discussão sobre valores éticos. Segundo Duarte Jr.

(2009), “a experiência estética solicita uma mudança na maneira pragmática de se perceber o mundo” (p.33). Da mesma maneira, há uma preocupação preponderante em Quintás (1992) no caráter relacional entre ética e estética. Para o autor, nossa formação de valores, ética, de respeito, é fruto de uma confluência de diversas realidades que dialogam, se misturam e criam sentido. Através dessa criação de sentido, não reduzimos a realidade, mas vemos toda a complexidade do mundo.

Enfim, consideramos que a experiência estética funda vínculos intrínsecos para com a natureza e essa seria essencial na defesa da conservação da biodiversidade. Os valores estéticos refletem nossos posicionamentos éticos e políticos no debate ambiental. Por isso, uma prática de educação ambiental não deve deixar de abordar essa dimensão educativa (CARVALHO, 2006).

A EA, a estética e o cerrado

Segundo Mittermeier et al., 2004 e Myers et al., 2000, o Cerrado tem um alto endemismo e riqueza de espécies sendo o segundo maior tipo de vegetação do Brasil, mas restam 21,6% da vegetação original já que esse bioma sofre pressão de ocupação humana. Portanto, o cerrado é considerado uma área prioritária para a conservação (Hotspot). A devastação do cerrado se iniciou no século XVIII com a exploração por ouro e outras pedras preciosas, enquanto que, a ocupação do cerrado, no século XX, se deu pela agricultura e pecuária devido ao relevo plano e ao baixo custo dessas áreas por conta do solo com poucos nutrientes. Atualmente, ainda existe uma pressão da expansão da fronteira agrícola e urbana sobre o cerrado (DUARTE; THEODORO, 2002). Dessa maneira, alguns trabalhos de educação ambiental (AMBRÓSIO et al., 2010; BENITES; MAMEDE, 2012; BERLINCK; LIMA, 2007; CAZOTO; TOZONI-REIS, 2008; VALENTI, et al., 2009) têm sido realizados com a temática da conservação do Cerrado. Esses trabalhos relatam trabalhos de EA no cerrado por meio de trilhas interpretativas ou outras atividades que objetivam conhecer a biodiversidade dessa vegetação.

Bizerril (2004), em uma pesquisa com estudantes do ensino básico de uma escola em Brasília (DF), identificou o baixo valor afetivo e alto valor utilitarista em relação ao cerrado. Além disso, os resultados indicam que faltam conhecimentos sobre a ecologia e conservação deste tipo vegetacional. O autor relaciona esses dados ao que é apresentado nos livros didáticos. Segundo as professoras/es que participaram da pesquisa, os livros didáticos fazem uma descrição das características físicas sem trazer questões como a biodiversidade local, os conflitos e os impactos ambientais. Bizerril (2003) analisou livros didáticos brasileiros onde existem poucas ilustrações de espécies animais do cerrado, sendo a grande maioria de animais africanos, australianos e domésticos. Para pensarmos em programa de EA mais efetivo e contínuo no Cerrado, consideramos relevante compreender o significado das vivências nesse bioma, que, historicamente, tem baixo valor estético (DUARTE; THEODORO, 2002).

Desenvolvimento da pesquisa

Abordagem metodológica

Echeverri (1997) defende que a reflexão fenomenológica-hermenêutica das questões estéticas permitem um novo olhar e novas maneiras de nos relacionarmos com a natureza. Em outros trabalhos, também discutimos a contribuição dessa perspectiva

para a pesquisa em educação ambiental (IARED et al., 2012) e para a compreensão dos valores éticos e estéticos (IARED; OLIVEIRA, 2013 - em fase de elaboração)⁸.

Algumas autoras (CAMPOS; CAVALARI, 2009; CARVALHO; GRÜN, 2005; SAMMEL, 2003) têm feito tentativas de fundamentar a pesquisa em EA a partir da hermenêutica filosófica de Gadamer. Segundo o autor, principal representante da hermenêutica no século XX, afirma que a compreensão das coisas vem à tona na linguagem (GADAMER, 1997). Carvalho e Grün (2005) afirmam que esta perspectiva se contrapõe à dicotomia entre o pensar e o agir, já que “Os sentidos produzidos por meio da linguagem são a condição de possibilidade do agir no mundo” (p.180). Nossas ações não são atos posteriores ou complementares às nossas compreensões do mundo. Agir não é consequência do nosso pensar. Segundo a autora e o autor, a ação está implicada na reflexão e na interpretação do mundo, não sendo um ato posterior ou decorrente dela.

Gadamer (1997) faz analogias entre a compreensão da natureza e da obra de arte. Assim como a obra de arte, a natureza nos confronta, nos perturba, nos convida, pelo simples fato de ser e estar ali sendo outra para nós mesmos. O ser estético depende da noção de apresentação. A natureza, por sua vez, não será ouvida a menos que nos engajemos com ela, a menos que nós tenhamos o desejo de escutá-la. A natureza, assim como o ser estético, adquire seu ser no ato de auto-apresentação. Assim, a compreensão somente é possível quando há respeito pela dignidade da coisa, por sua alteridade. Aquilo que nos é familiar não nos encoraja à compreensão. A compreensão é possível apenas quando nós retemos o respeito pela outriedade do outro que nós procuramos conhecer (GRÜN, 2006, p. 178).

Tavares *et al.* (2009, p.185) defendem essa perspectiva colocada por Gadamer (1997) e Grün (2006), ao afirmarem que uma nova percepção estética é decorrente de uma compreensão do outro como parte de nós, ao que está fora e dentro de nós ao mesmo tempo, e não somente à percepção deste. O Outro está numa relação de alteridade existencial, “sob a compreensão do sentido ético-estético necessário às práticas individuais e coletivas” (TAVARES *et al.*, 2009, p. 185). No mundo atual, é difícil trabalhar a questão do respeito e solidariedade pelas coisas e pela natureza. Gadamer (1977) citado por Grün (2006)⁹ fala em “linguagem das coisas” em contraposição à “natureza das coisas”. Linguagem das coisas que se auto-apresentam, que queremos ouvir, no modo como as coisas trazem a si mesmas para a linguagem:

A linguagem é fundamental para compreender a nossa relação com a natureza. Através da linguagem podemos compreender que não estamos fora da Natureza, como apregoava Descartes. (...) Uma compreensão hermenêutica nos leva a perceber o que poderia ser uma relação ecológica entre seres humanos e natureza. Seria uma relação na qual nós participamos na natureza e a natureza participa em nós. Esse tipo de compreensão nos permite estabelecer “Tecnologias de Aliança” com a natureza para nos aproximarmos dela e, ao mesmo tempo, manter sua outriedade sempre respeitada (GRÜN, 2006, p. 179).

⁸ IARED, V.G.; OLIVEIRA, H.T. The aesthetic experience of nature in a hermeneutic phenomenological approach. Em elaboração - a ser enviado para Revista Pesquisa em Educação Ambiental.

⁹ GADAMER, H.G. *Philosophical hermeneutics*. [Trans. David E. Linge]. Berkeley: University of California Press, 1977.

Para Grün (2006), o Outro, nesse caso, é a natureza que se dirige a nós. O autor defende que a hermenêutica possibilita uma aproximação com a natureza, uma vez que atua nesse campo da compreensão do outro, da alteridade e do respeito. Essa compreensão reside no respeito pela diferença e pelo Outro. Nesse sentido, interpretar a natureza é respeitar seu significado na sua auto-apresentação e não tê-la a partir da dominação.

Coleta e análise de dados

Os dados foram coletados pelo método da pesquisa narrativa. Nesse método, considera-se a experiência das pessoas em um determinado espaço e tempo (GALIAZZI et al., 2008). Para as autoras essa experiência está relacionada a um contexto de vida mais amplo e o pensamento narrativo seria uma maneira de sistematizar e refletir sobre ela. Bruner (2001) afirma que a/o narrador/a relata eventos que denomina como cruciais e cabe a nós, pesquisadoras, interpretá-los de diferentes e variadas formas.

Segundo Connelly e Clandinin (1990), o uso de narrativas nas pesquisas em educação deriva do fato dos seres humanos serem indivíduos que contam histórias tanto individualmente como coletivamente. Segundo os autores, o estudo das narrativas possibilita conhecer as maneiras como os seres humanos experienciam o mundo, sempre lembrando que essa relação é mediada pela cultura e por ideologias. Riessman (1995) explica que as narrativas são formas da cultura se manifestar através da história de um indivíduo e, portanto, a linguagem constitui profundamente a realidade de um grupo de pessoas ou de uma comunidade. A linguagem deve ser compreendida como a identidade de um local, tempo e grupo, não pode ser entendida como um símbolo simplificado, transparente e de significado superficial. Segundo Bell (2003), nos estudos narrativos a concepção de linguagem vai além de concebê-la como uma ferramenta comunicativa. Para a autora é uma escolha ontológica e epistemológica que nos traz a experiência segundo inúmeras perspectivas.

Concordamos com Bell (2003) ao aproximar a pesquisa narrativa da perspectiva hermenêutica. A autora comenta que essa aproximação contemplou seu desejo de explorar interpretações e construções individuais e coletivas, ao invés de investigar e representar histórias individuais, o que é mais comum nos estudos narrativos. Cronon (1992) argumenta no mesmo sentido de que as narrativas são as formas pelas quais os sujeitos organizam suas experiências, não apenas como indivíduos, mas como comunidades e sociedades. Nessa perspectiva, as narrativas não buscam a verdade ou leis que governam nossos comportamentos (HART, 2002). O autor afirma que esse método nos ajuda a procurar significados que nos auxiliem a lidar com nossas circunstâncias.

Na definição do público participante deste estudo procuramos pessoas que tinham um histórico de envolvimento afetivo em relação ao Cerrado. Considerando esse perfil, quatro grupos distintos foram convidados para participar da pesquisa: Grupo de Estudos e Pesquisa em Educação Ambiental/ UFSCar (Gepea), Projeto de Educação Ambiental e Lazer/ UFSCar (Pedal), Ecovila Tibá de São Carlos e grupo de monitoras/es do Centro de Divulgação Científica e Cultural (CDCC) da USP. O Gepea é composto por professoras/es, graduandas/os, pós-graduandas/os e pessoas interessadas em refletir e discutir a educação ambiental sob a perspectiva da pesquisa. O Pedal é um grupo composto por ciclistas que buscam viajar e passear por paisagens não urbanas, que permitem o contato com matas, cachoeiras, praias e trilhas como uma alternativa de fruição do lazer desvinculada do consumo. A Ecovila Tibá de São Carlos é um grupo de

interessadas/os em morar e conviver em um local que propicie um contato mais intenso com a natureza, sendo que para isso buscam uma gestão compartilhada como forma de organização do grupo. As/os monitoras/es do CDCC são bolsistas ou voluntárias/os que guiam visitas em alguns locais de São Carlos, sendo que uma dessas visitas é realizada no cerrado da UFSCar.

Por meio de entrevistas semi-estruturadas, objetivamos compreender a profunda relação entre essas pessoas e esse tipo de vegetação. Quais as histórias e experiências que guiaram essa relação? Quais vivências possibilitaram um vínculo afetivo com essa área de cerrado e acabaram por mediar outras ações que o envolvem? O contato com a área de cerrado possibilitou comprometimento na defesa das causas ambientais? Os convites e as entrevistas foram realizadas de junho a dezembro de 2012, sendo que 13 pessoas do Gepea, 02 do Pedal, 01 da Ecovila Tibá e 01 monitor/a do CDCC aceitaram participar da pesquisa, totalizando 17 entrevistas. As entrevistas foram transcritas e analisadas à luz da análise de conteúdo. Por meio dessa técnica, consideramos que as entrevistas são um meio de comunicação e buscamos aproximar as unidades de texto (palavras e frases) que se repetem em expressões ou categorias que as representem (CAREGNATO; MUTTI, 2006).

Resultados e Discussão

Para apresentar os resultados, optamos pela construção de uma tabela que exponha com mais clareza os dados encontrados. O perfil das/os entrevistadas/os é homogêneo no que diz respeito à formação universitária. Ou seja, todas/os realizaram ou realizam atividades na universidade e, de alguma forma, ainda estão em contato com a Academia. O Quadro 01 apresenta esse perfil:

Quadro 01: formação acadêmica e ocupação profissional das/os participantes da pesquisa.

Apontamento	Número de apontamentos
<i>Formação acadêmica</i>	
Biologia	10
Educação Física	02
Ecologia	02
Arquitetura	01
Genética	01
Física Computacional	01
Turismo	01
<i>Ocupação profissional atual</i>	
Pós graduandas/os	09
Professor/a Universitário/a	03
Educadora Ambiental/ Pesquisador/a/ Analista Ambiental	03
Pós-doutorado	02
Graduandas/os	01

No Quadro 02, apresentamos os elementos que emergiram durante as entrevistas e que consideramos relevantes para o campo de pesquisa da EA. Esses elementos estão organizados segundo o assunto que estava sendo conversado durante a entrevista. Consideramos um apontamento por entrevista, ou seja, se a/o mesma/o entrevistado relatasse um mesmo aspecto diversas vezes, o apontamento era computado apenas uma única vez.

Quadro 02: Expressões emergidas durante as entrevistas que representam significados marcantes para as/os entrevistadas/os.

Apontamento	Número de apontamentos
<i>Passou a infância residindo em</i>	
Ambiente urbano	15

Ambiente rural	02
<i>Aspectos/ momentos/ pessoas marcantes de contato com a natureza na infância e adolescência</i>	
Lazer coletivo (diversão, brincar, lúdico, estar com amigos e parentes)	13
Influência de Pai/ mãe/ avô/ avó	11
Chácaras/ sítios/ fazendas/ casas na praia	10
Zoológicos/ áreas naturais/ praças urbanas	06
Convivência com animais e plantas em casa	06
Contemplação	06
Férias/ finais de semana/ feriados	05
Postura investigativa	04
Quintal ou rua com muitas árvores e animais	03
<i>Vivências no cerrado</i>	
Passear/ caminhar/ andar de bicicleta	11
Cursos/ Disciplinas/ pesquisas no cerrado	09
Experiências no cerrado começaram na vida adulta	07
Facilidade de acesso/ proximidade propiciou contanto permanente	07
Visitas noturnas no cerrado	07
Lazer coletivo (diversão, brincar, lúdico, estar com amigos e parentes)	06
Imersão no cerrado (passar dias no campo)	05
Guiar visitas	04
Contemplar	04
Cerrado no âmbito do paisagismo/ Ambiente mais próximo	04
Fotografar	03
<i>Aspectos referentes à reflexão sobre as questões políticas, sociais, econômicas em relação ao cerrado</i>	
Situações polêmicas e de conflito sobre a conservação do cerrado	09
Diálogo entre familiares, amigos, colegas	08
Experiências (não necessariamente no cerrado) refletiram na escolha do curso de graduação	06
Vivenciar a natureza propicia reflexão	06
Pesquisas/ trabalhos em disciplinas	05
Leitura de textos, discussões em grupo, cursos	05
Experiência profissional no/ sobre/com o cerrado	05
Convivência com pessoas de outras áreas/ diferentes opiniões, visões	04
Guiar visitas no cerrado: responsabilidade como educador/a	04

Um aspecto muito comentado entre as/os entrevistadas/os foi o Lazer coletivo. O fato das pessoas estarem em um momento de diversão e descontração, acompanhadas de amigas/os e parentes faz a experiência ser significativa e prazerosa. O filme *Na Natureza Selvagem* (2007) relata a história real de um jovem que ao discordar da maneira que a sociedade vive, busca a liberdade e a alegria em meio às montanhas do Alasca. O rapaz vive, então, uma experiência estética de imersão plena na natureza. Porém, quando percebe que está vivendo tudo isso sozinho, escreve: “A felicidade só é verdadeira quando compartilhada”. Esse aspecto foi recorrente nas narrativas: as experiências são boas porque estão JUNTO COM outras pessoas, como conta a (E02):

Então, eu lembro muito dele me mostrando as coisas. Dele me ensinando sobre os animais. Dele me levando pros lugares, por exemplo, pro zoológico. Ele sempre me levava quando a gente ia pra São Paulo. No Simba Safári. Então, tinha um pouco dessa relação, assim, estar com a família, né, também, junto com a questão da natureza (E02).

Esse relato está em concordância com Alves et al. (2006) quando afirma que cinco pilares promovem a sustentabilidade nos processos educadores: identidade, comunidade, diálogo, potência de ação e felicidade. Baseados nesses conceitos, que estão referenciados em outras/os pensadoras/es, as/os autoras/es discutem que a

vivência plena de diálogo, afeto e compreensão mútua são caminhos para felicidade e para a transformação individual e coletiva em relação às questões ambientais.

Uma das preocupações muito presentes, atualmente, no campo da EA é *onde* propiciar tais vivências uma vez que grande parte da nossa população é urbana. Monbiot (2012) preocupa-se com a falta de espaço para as crianças “brincarem” na natureza e nomeia esse fenômeno como a segunda crise ambiental. A crescente urbanização e a falta de contato com a natureza também foi foco de estudo de McClaren (2009) e Louv (2008). De fato, algumas pessoas indicaram que a Facilidade de acesso/ proximidade propiciou contanto permanente e isso é relevante na criação de uma identidade e pertencimento em relação ao local, como apontam os estudos de Iared (2010) e Thiemann (2013, em fase de elaboração)¹⁰. Um/a das/os participantes (E01) conta sobre a frequência com que visita o cerrado, enquanto outra/o (E13) lembra do desafio de conciliar ambientes preservados e antropizados:

E aí, o cerrado aqui é uma realidade muito próxima porque tá, sei lá, há 15 minutos da minha sala de aula. Dá pra você ir lá, ficar em silêncio. Para um pouco a vida e olhar as coisas em volta (E01).

O Brasil segue o modelo, na minha cabeça, é o modelo americano. Deixa uma área conservada e o resto vale tudo. Então, enquanto tiver esse modelo, você... A tendência é você só assegurar as áreas naturais protegidas. (...) Diferente de outras políticas que seria o desenvolvimento como um todo. Ambientes naturais junto com ambientes construídos. E todo mundo convivendo super bem sem ter esse stress todo (E13).

Bögeholz (2006) e Louv (2008) destacam a importância das vivências em ambientes mais preservados para a formação de valores e atitudes, enquanto que McClaren (2009) acredita que temos que superar a dicotomia ser humano - natureza e a visão de que o ambiente urbano é fonte de problemas e considera que precisamos pensar em formas de realizar EA nas cidades. Na presente investigação, constatamos a relevância de áreas verdes urbanas ou locais pouco antropizados, já que os espaços em que tais vivências ocorrem são Zoológicos/ áreas naturais/ praças urbanas ou Chácaras/ sítios/ fazendas/ casas na praia. A maioria das/os entrevistados relatou ter nascido, crescido e ainda serem de Ambiente urbano, o que faz com essas vivências sejam possíveis, em alguns casos, em Férias/ finais de semana/ feriados. Outras/os afirmaram que, apesar de viverem em um ambiente urbano, estão em contato com um Quintal ou rua com muitas árvores e animais ou têm possibilidade de Convivência com animais e plantas em casa. Nesse contexto, alguns apontamentos indicaram a possibilidade de trazer espécies nativas do Cerrado para o âmbito do paisagismo como oportunidade de experiência estética, como afirma (E15):

Mas também porque ... o cerrado, além de não ser valorizado, ele nunca, ele não é considerado um exemplo de vegetação que poderia ser trazida para o âmbito do paisagismo. Incrível, né? Não é? Você, assim, a gente plantar um ipê, a gente plantar um angico, plantar... E angico já é difícil!(E15).

Disso percebemos que tanto a conservação de áreas naturais como a gestão de áreas verdes urbanas são potencialidades para práticas em educação ambiental que

¹⁰ THIEMANN, F.T. *Biodiversidade como tema para a educação ambiental: contextos urbanos, sentidos atribuídos e possibilidades na perspectiva de uma educação ambiental crítica*. Tese de doutorado a ser defendida em março de 2013 pelo Programa De Pós-Graduação em Ecologia e Recursos Naturais/ Universidade Federal de São Carlos.

podem caminhar simultaneamente para que essas experiências identificadas ocorram. A informalidade dessas vivências é um aspecto relevante observado nos dados coletados. Nas narrativas referentes ao cerrado estão presentes atividades relacionadas à Visitas noturnas, Passear/ caminhar/ andar de bicicleta e ao Lazer coletivo. As/os entrevistados (E03) e (E07) narram suas histórias no cerrado, enquanto que (E13) faz uma crítica ao modelo formal e tradicional de EA:

Mas pude participar por diversas ocasiões do lual do cerrado que também era um espaço de convivência que as pessoas conversavam, se conheciam. (...) Era muito gostoso você compartilhar a música o espaço, o cheiro, o caminho até lá à noite. (...). Acho que isso estreitou ainda mais o contato com a natureza, de chegar até ela, pra ter esse prazer de... (E03).

Tanto que a gente ia à noite [para o cerrado] pra coletar dados que nunca fizemos [risos]. Mas pra observar mesmo. Pra vivenciar a natureza. Pra vivenciar o contato com o... Ah não sei... Com o mundo não humano, digamos assim. Mas de qualquer forma sempre tava junto. Então a gente ficava conversando de tudo. Então, era um lugar também gostoso de estar, falar das outras pessoas (...) Eu lembro que a gente ficava deitado numa área mais aberta ali do cerrado olhando as estrelas, a gente ficava horas. É muito curioso. E aí era bom que a gente via... Vimos um lobo guará uma vez. (E07).

Assim, você vai nas unidades de conservação e tem a trilha. “Siga a trilha, não fuja da trilha, não pegue isso, só pode tirar foto, não pode tirar mais nada”. Tem até um jargão: “Aqui nada se deixa a não ser... Nada se leva a não ser foto, lembrança...”. Isso pode até ser muito bom pra conservação do ambiente em si. Agora, não é pro humano que tem que ter essa percepção um pouco mais arraigado (E13).

Watson (2011) relata a experiência de imersão em uma área natural, onde crianças e adolescentes têm a oportunidade de realizar atividades tanto programadas (estudo de campo, trilhas e rodas de conversa), como não estruturadas. Segundo o autor, os dois tipos de atividade possibilitam contato com a natureza e uma reflexão sobre o mundo não-humano. Da mesma maneira, Carvalho (2001), em pesquisa sobre a formação de um sujeito ecológico, identificou nas narrativas de suas/eus entrevistadas/os que as experiências na natureza, vividas na infância e na vida adulta tem relação com a criação de um vínculo afetivo e com o envolvimento no movimento ambientalista. A autora considera que poderíamos resgatar alguns princípios da EA romântica que, muitas vezes, são criticados pela EA crítica que estamos pautadas/os. De fato, algumas narrativas apontam que a Imersão no cerrado (passar dias no campo) trouxe aspectos marcantes para a formação de valores.

Dessa análise, poderíamos considerar que também devemos pensar em atividades de EA com outras características que não as tradicionais (visitas estruturadas e guiadas), ou seja, atividades com um caráter mais espontâneo, lúdico e sensorial. Um exemplo para ilustrar aparece na própria pesquisa quando muitas/os participantes descreveram momentos que foram marcantes e não se configuravam em uma atividade estruturada :

Acho que diferente, você passear num ambiente mais escuro. A gente ia com lanterna, aquela coisa da surpresa “o que será que a gente vai encontrar ali na frente?”. Enfim... era bem gostoso. Eu gostava muito.... (E08).

E aquilo também foi muito marcante porque era uma relação de um camping selvagem durante muitos anos. A gente ter que se virar com os restos, de... Não ter luz, não ter comida, porque não tinha onde a gente comprar. De ter que ver o que ter que fazer com o esgoto, com o resto de, né? Não tinha um banheiro, como a gente fazia pra... ? Conhecemos os caixas, como eles que eles faziam. Então, vivendo assim, desde criancinha, por tanto tempo, me ajudou muito a criar essa empatia, essa profunda admiração pela, pela natureza, né?(E10).

No relato da/o entrevistada/o (E10), assim como em outras narrativas, percebemos como Vivenciar a natureza propicia reflexão. Os Aspectos referentes à reflexão sobre as questões políticas, sociais, econômicas em relação ao cerrado emergiram durante as entrevistas e foram categorizadas como situações e momentos em que isso foi suscitado de maneira mais significativa. Afinal, é a partir da “reflexão/meditação a respeito do que sentimos pelas coisas é que podemos formar ideias delas mais claras e distintas” (ALVES et al., 2006, p. 27).

Nesse sentido, concordamos com Freire (2011) quando afirma que a leitura do mundo precede sempre a leitura da palavra, sendo que esse movimento do mundo à palavra e da palavra ao mundo não cessa. O autor atribui importância fundamental ao quintal de sua casa onde passou sua infância e relata:

Me vejo então na casa mediana em que nasci, no Recife, rodeada de árvores, algumas delas como se fossem gente, tal a intimidade entre nós- à sua sombra brincava e em seus galhos mais dóceis à minha altura eu me experimentava em riscos menores que me preparavam para riscos e aventuras maiores (FREIRE, 2011, p. 20).

Freire (2010) afirma que na nossa existência humana há uma *curiosidade estética* e é “ela que me faz parar e admirar o pôr do sol” (p.77). Ele refere-se à *curiosidade* como uma abertura do nosso corpo consciente intencionando-se ao mundo para compreendê-lo. A curiosidade seria essa disposição de nos desafiarmos diante das coisas, dos fatos e fenômenos, da boniteza e da feiúra; esta vontade de compreender e de buscar a razão dos fatos. Para o autor, a curiosidade ingênua tem a possibilidade de vir a ser curiosidade epistemológica quando existir uma posição reflexivo-crítica por parte dos sujeitos.

Segundo Carvalho (2001), a construção de uma novo posicionamento ético para a conservação da biodiversidade, passa por situações polêmicas e conflitantes. Identificamos nas narrativas analisadas que Situações polêmicas e de conflito sobre a conservação do cerrado e a Convivência com pessoas de outras áreas/ diferentes opiniões, visões contribuíram com a formação de valores éticos sobre o cerrado. Para Marin (2007), o despertar dessa ética ambiental ocorre em um campo de profundas reflexões sobre as relações do ser humano com o mundo. Baseadas em Freire (2011), acreditamos que esse novo olhar ético também é construído na experiência dialógica, uma vez que ela “é fundamental para a construção da curiosidade epistemológica” (p. 81). Esse espaço de diálogo se dá com familiares, com colegas de trabalho (Diálogo entre familiares, amigos, colegas) ou em outros espaços de formação (Leitura de textos, discussões em grupo, cursos), como relatam as/os entrevistados (E04) e (E12).

E aí surgiu a conversa em casa. Foi, inclusive, minha irmã. Minha irmã é um pouco mais velha do que eu. Minha irmã é dez anos mais velha do que eu, comentou: “olha só estão levando desenvolvimento, mas olha o impacto ambiental, olha a poluição que estão jogando lá no meio da selva”, enfim. E aí disso, eu acabei... Eu ainda era muito criança. Mas fiquei tocado por aquela coisa que minha irmã tinha comentado (E04).

Então, eu comecei a tomar contato com engenheiro florestal, com agrônomo, com arquiteto. De uma certa forma, assim, isso mexeu com a minha própria visão de natureza e a relação das pessoas com a natureza (...) Eu comecei a atuar na Ramudá que é uma ONG. E dentro da ONG, assim, o pessoal. Tinha um pessoal que fazia grupo de estudos também. A gente estudava questões filosóficas. Tinha essas discussões lá dentro, né?(...) Eu também tinha um amigo, cientista social, que me influenciou. Ele começava a me perguntar, questionar, eu não sabia responder, E eu tive que começar a ir atrás pra responder (E12).

Relatos sobre a Influência de Pai/ mãe/ avô/ avó foram recorrentes nas narrativas quando descreviam sobre suas experiências na infância e na natureza, como ilustra o trecho de entrevistas de (E15):

Minha vó é uma pessoa que viveu muito tempo na fazenda...[...] então ela sempre foi uma pessoa que sempre me chamou muito a atenção. E eu sempre gostei muito de ouvir histórias e minha avó sempre contava muita história...(E15).

Este fator aparece como relevante também como momento de reflexão das/os entrevistadas/os quando falam sobre o Diálogo entre familiares, amigos, colegas. Ferrigno (2003) afirma que várias investigações têm surgido para abordar o relacionamento entre gerações devido ao aumento da longevidade humana e, quando há respeito e igualdade de direitos, ambas as gerações saem engrandecidas. O autor identifica que “as aquisições de conhecimentos recíprocos se dão fora do espaço escolar e através de atividades culturais, na informalidade do lazer...” (FERRIGNO, 2003, p. 143), fator também observado nesse estudo. Payne (2010) já realizou pesquisas sobre o aspecto intergeracional na EA e, por considerar que esse aspecto é relevante para a construção de uma nova ética ambiental, recomenda que mais estudos sejam feitos sobre essa temática. Assim como Ferrigno (2003), Payne (2010) percebe a importância dos espaços informais para a construção de novas regras e valores morais, questionando quais lugares a EA deveria incorporar e como esse currículo “não oficial” pode ser pensado no nosso campo de atuação e pesquisa.

Considerações Finais

Na nossa interpretação, nos apontamentos que encontramos durante as entrevistas podem ser enfatizados dois conceitos que vêm sendo caros para a educação e para a educação ambiental de base crítica: a intersubjetividade e o diálogo. As narrativas das/os entrevistadas/os indicam a presença do OUTRO como fundamental durante o processo do *sensibilizar-se* e *conscientizar-se* sobre as questões ambientais. Essas vivências ocorrem, principalmente, em momentos de lazer e descontração em família e entre amigos/os, o que nos faz refletir sobre a importância de, também, valorizarmos atividades de EA não estruturadas, como temos visto tradicionalmente. Precisamos pensar em estratégias de EA que possibilitem a convivência e o diálogo COM outras pessoas de diferentes gerações, histórias e visões de mundo. Dessa análise, percebemos que, também, devemos investir em estratégias de EA que incorporem espaços e momentos informais de caráter recreativo, lúdico e espontâneo.

Viver em comunidade propicia experimentar a intersubjetividade e reconhecer e respeitar o outro (seres humanos e não humanos) enquanto sujeito e não objeto. Essa relação intercorporeal tem a potencialidade de criar um novo senso ambiental estético e ético. Cabe ao campo de pesquisa da EA aprofundar a compreensão desse processo no nosso modelo de sociedade atual. Através disso, podemos pensar em estratégias e atividades em EA que potencializem a vivência da intersubjetividade e do diálogo.

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SEÇÃO 5- ARTIGO 4

Figura 01: Inseto na Universidade Federal de São Carlos, São Carlos, SP. Foto de Leandro Kenji Takao/ 2012.

Aesthetic experiences in the Cerrado (Brazilian savanna): contributions to the field of research and environmental education activities

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Aesthetic experiences in the Cerrado (Brazilian savanna): contributions to the field of research and environmental education activities

Abstract: A search of the literature revealed a lack of environmental education (EE) practice concerning the aesthetic dimension due to the axiological sphere in the educational process being devalued. In Brazil, studies show low aesthetic value attributed to the Cerrado and claim that the history of its devastation deserves attention. Based on this, our aim is to understand, clarify and discuss what sensations, perceptions and feelings were evoked during an aesthetic experience in the Cerrado, adopting a hermeneutic phenomenological approach. Interviews conducted with 17 people showed that sensations, perceptions, emotions and feelings are non-linear and reciprocal processes, in constant movement and include, as a whole, what we call an aesthetic experience in the Cerrado. The importance of other aspects such as mystery, time and the difficulty of understanding one's feelings and representing them in environmental education processes were also considered in this analysis.

Keywords: hermeneutic phenomenology, Brazilian savanna (Cerrado), experience, aesthetics.

1. Introduction

Despite the fact that we recognise the aesthetic dimension as being fundamental for environmental education (Carvalho, 2006), research indicates that this issue has not been well discussed in terms of educational practice (Bonotto 2008; Carr 2004; Iared and Oliveira 2012; Marpica 2008; Laçin Şimşek 2011; Valenti 2010). Iared and Oliveira (2013) conducted a survey using the keywords "environmental education" and "aesthetics". From 1997 to 2011, they identified that out of the 20 listed academic studies (Master's and Doctorates) that they investigated, 11 cited and placed value on the aesthetic dimension of environmental education, however only 9 focused on aesthetics for research purposes.

According to Quintás (1993), ecological crises can also be considered as crises of aesthetic values and, in accordance, we accept the idea that environmental degradation requires not only scientific and technical measures to find solutions. The complexity of environmental issues requires reorientation of our *being-in-the-world* (Heidegger 1962), which among other approaches, can be understood in the environment of *corporeal turn* discussed by different authors (Payne and Wattchow 2009; Sheets-Johnstone 2009).

Tension between modernity and post-modernity is fundamental in the field of environmental education. Payne (1999) and Sauv  (1999) consider that there are challenges, limitations and potential within the post-modern paradigm. The post-modern view disputes rationality and scientific knowledge as a basis of our society and considers other ways of being in the world such as emotion, as well as sensitive, aesthetic and artistic issues. Rationalistic systematization prevents sensitive perception

in the world. The utilitaristic, anthropocentric, pragmatic view legitimizes the understanding that the world was created for the enjoyment of human beings and there is a need to rediscover our instinctive, affective and creative nature so that we can reacquaint ourselves with the world of which we are part of. According to Tavares, Brandão and Schmidt (2009), a watchful eye is required in the careful sense of the world, with feelings towards the *invisible* behind the glaring visibility which presents itself to us.

The Cerrado is the second largest Brazilian biome, known for being an environment that reaches high temperatures and adapted to fire, but considered a hotspot, with a remaining area of 20% of the original vegetation. Although home to a rich biodiversity and being an area of recharge for the *Aquífero Guarani*, the Cerrado is being deforested at a faster rate than the Amazon rainforest. Some authors (Alho and Martins 1995; Duarte and Theodoro 2002; Klink and Machado 2005) claim that the history of exploiting the Cerrado is of great concern. According to Bizerril (2001, 2003, 2004), the Cerrado's biodiversity is rarely addressed in the Brazilian school curriculum, which reflects and is reflected in the low aesthetic value placed on this type of vegetation. In the literature, many studies concerning educational activities of this biome can be found, precisely with the objective of providing experiences in these natural areas (Benites and Mamede 2012; Cazoto and Tozoni-Reis 2008). Based on these concerns, in this study, the aim is to understand what the nature of the aesthetic experience is in the Cerrado. Therefore, we believe to be contributing to the axiological dimension of educational and research practice in environmental education.

2. The aesthetic experience in environmental education

The word *aesthetic* comes from the Greek *aisthêsis* and one of its meanings lies in the concept of experiencing the world within as inspiration and as enchantment using our senses (touch, smell, taste, sight, hearing). According to Duarte Júnior (2000), historically the aesthetic dimension was confined to the sphere of fine arts. Pareyson (2001) and Langer (2006) discuss the broad connotation of the term *aesthetic* in today's world, and point out that given such multiplicity, and sometimes confusion of concepts, it is fitting to define a specific meaning. We assume, here, that aesthetic experience is this perception of the world having our whole body immersed in the environment, making reference to the *embodied body* of Merleau-Ponty (1962). Following this perspective, there are authors who perceive aesthetics as a field of interdisciplinary research: Gallagher (2005), Shusterman (2008) and Sullivan (2001) are against the dualism between mind and body, and Shusterman (2008) uses the term *somaesthetics* as a definition. This concept of our body in the world matches the *corporeal turn* (Payne and Wattchow 2009; Sheets-Johnstone 2009) philosophical movement in which we have a visceral connection with the world and, more than an interaction, there is a constant *transition* (Sullivan 2001) between the human world (individual, social, political and cultural), non-human beings and other non-living presences in the world.

The perceptive field of a new investigative, sensitive and critical *outlook* evokes the discovery of the world, or new ways of learning and grasping the world (Freire 1994). According to Quintás (1993), the aesthetic experience fosters links, unifies the I/world relation and, consequently, the distinct world, hitherto distant, becomes distinct-intimate. Furthermore, in this journey an autonomous creative activity is given to the individual, who captures the relational aspect of reality to give it a sensitive configuration. Duarte Júnior (2009) argues that the aesthetic experience depends on

learning and it is, precisely for this reason that there is a need to talk about aesthetic education. According to the author, we should become familiar with the world of our feelings and become more aware of subtleties in our inner life.

This brings us to one of the most challenging tasks in environmental education, which is to redirect humans to their creative freedom and overcome a perception of the purely rational world (Marin 2006). According to Tavares, Brandão, and Schmidt (2009), this task is exciting and can motivate creative abilities and dialogues inherent to the subject with the aim of providing a sensitive view of the world, moving away from the Cartesian perception, hegemonic nowadays, and making us reflect on other possibilities of being in the world with others and acting ethically and politically.

The contribution of the phenomenological-hermeneutic perspective to environmental education research (Iared, Di Tullio, and Oliveira 2012) and understanding of aesthetics, ethics and politics (Payne 2013) has already been discussed. Contributions from Gadamer's hermeneutics resignify the phenomenological investigation by interpreting meanings which guide and reorientate existence (van Manen 1990). According to Quintás (1993), hermeneutics clarifies the understanding of the aesthetic experience based on the concept of games, proposed by Gadamer (1987, 2004), explained later.

To understand how this process happens, we support the idea of understanding beforehand and becoming aware¹¹, based on Freirean pedagogy (Freire 1994). Hermeneutics brings the perspective to interpreting, producing meaning and making it impossible to separate the subject from the world. Hermeneutics studies the understanding of human experience in the world, which is already interpreted (Hermann 2002). We consider this especially important when we address environmental education as we are talking about human beings' relations with the environment. Marin and Lima (2009) and Payne (2003) claim that experiences (in nature) are at a pre-reflective level and this should be recognised in an interpretative investigation in which we attempt to understand human beings' relations with nature. In order to understand the essence of lived experience, we should have an intimate dialogue, which enables us to have spaces where we can relate to the participants of the research (van Manen 1990).

3. Data Collection

Data was collected using the narrative research method. In this method, people's experiences in a given space and time are considered to search for meanings that help us understand our lived experiences (Bruner 2001; Hart 2002). The assumption being that the experiences are related to a broader life context and the narrative thought would be a way of systematizing and reflecting on it.

Regarding the public participating in this study, we looked for people who had a history of involvement with the Cerrado, which does not refer to specific experiences in the environment in question, but rather to an affective memory and a strong bond. Hence, the term in the plural - "experiences" - in the title of the article as the participants have experienced various opportunities in the Cerrado. As mentioned before, we opted for this type of vegetation due to its history of devastation in Brazil and for being part of a territory of the Cerrado. Considering this profile of involvement

¹¹In the book *Pedagogy of Hope*, Freire (1994) says that no-one instills awareness in anyone. We all have awareness which is directed at something. What the learning process allows is self-awareness, one becoming aware.

with the Cerrado, four different groups were invited to participate in the research: the Research and Study Group in Environmental Education/Federal University of São Carlos - UFSCar (*Gepea*); the Environmental Education and Leisure Project/UFSCar (*Pedal*); *Ecovillage Tibá* of São Carlos and a group of monitors from the Scientific and Cultural Divulcation Centre (CDCC)/ University of São Paulo-USP. The *Gepea* is made up of lecturers, undergraduates, postgraduates and people interested in reflecting on and discussing environmental education from a research point of view. *Pedal* is a group of cyclists, who go for bike rides through the countryside. They visit forests, waterfalls, beaches and trails as an alternative to enjoying a leisure activity not associated to consuming products. *Ecovillage Tibá* of São Carlos is a group of people who are interested in living in a place which provides more opportunities to have contact with nature. Due to this, they look for shared management as a way of organizing the group. The monitors from CDCC receive scholarships or are volunteers, and they are also guides for visitors in some places in São Carlos. One of these visits is to the Cerrado at UFSCar. Part of the data from these interviews was presented in another study, in which we analysed the different strategies and experiences that contribute to forming aesthetic and ethical values related to the Cerrado. In this article, we focus on the participants' perceptions.

By using semi-structured interviews, our aim was to understand which emotions and feelings are experienced in the Cerrado based on the following questions: which aspects call attention in this type of vegetation? Which perceptions does the Cerrado evoke in us? Which feelings and emotions are aroused? Which experiences were and continue to be pleasant and why? The invitations and interviews took place from June to December, 2012. Thirteen people from *Gepea*, two from *Pedal*, one from *Ecovillage Tibá* and one monitor from CDCC accepted to take part in the research, making a total of seventeen interviews which lasted around 40 minutes. As we used a hermeneutic and Freirean approach as a basis, we understand that the data interpretation appears in the dialogue between the researcher and the participants of the research. Taking this into account, we followed some steps which we found to be coherent with the methodological theoretical framework adopted. First of all, we returned the interview transcripts to those involved in the research, allowing them to make any corrections to the text, changing, taking things out and even adding situations, opinions, and information which was considered important. We systematized the interviews approximating parts of the text (words and phrases), which were repeated in expressions that represented them. This was organized into tables, which were returned to the interviewees for them to discuss if our interpretation of experience was coherent with what they felt and experienced. Our concern was to create moments of reflection that transcend the interview, which is characterized by relating an experience in a short conversation and often does not reflect all the ideas, memories and opinions of the participants (Rollemberg 2013). Considering this, once more, the interviewee could analyse the systematization, complement it and even change what was talked about. After this step, we reorganized the systematization and data analysis based on this interpretation, which we consider more dialogic and, therefore, consistent with the methodological theoretical framework adopted. However, we assume here the limits of representing this technique – the non-representational theory by Thrift (2008) as all the ways of representing this experience are limited and the interviews are understood as opportunities and moments of co-constructing between the researcher and participant, and not as an extraction of truths or facts (Rollemberg 2013).

4. Data Analysis

The profile of the interviewees is homogeneous with respect to their university education as they have done or are still in contact with the universities, or have done something that is compatible with groups we invited. The participants were all middle class, there were 11 women, 6 men and 3 foreigners, but resident in São Carlos, SP. Out of the 17 people interviewed, 10 were Biologists, 2 were Ecologists, 2 were Physical Educators, 1 was an Architect, 1 was a Geneticist and 1 was from the computational area.

In this study, we opted to focus on interpreting the aesthetic experiences of the Cerrado. Therefore, we systematized the interviews and, based on this we set out to understand which perceptions are aroused in the Cerrado and how they are related during the aesthetic experiences. We listed aspects that were expressed during the interviews¹², which are not presented according to levels of importance or the number of notes:

- perception of the Other and totality;
- powerful;
- exuberant;
- diversity of animals and flowers;
- colours of the Cerrado;
- surprising;
- the sky of the Cerrado;
- low, twisted, sparse trees;
- lovely and beautiful;
- sounds of the Cerrado;
- the sun, heat and wind of the Cerrado;
- smells of the Cerrado;
- fear and mystery;
- fire in the Cerrado;
- admiration; respect;
- pleasant;
- freedom;
- love.

As we understand it, all the aspects are connected, in a dynamic movement, equally contributing to aesthetic experiences. Our interpretation resulted in Figure 1, which illustrates how aesthetic experiences occur in the Cerrado and was based on collected data. The mesh shape represents the aspects which are constantly moving and make up the mosaic of relationships. Furthermore, this figure is a challenge in terms of representing the complexity of the given phenomenon.

¹²The words that refer to these elements appear in bold in the transcripts in the interviews presented in the article.

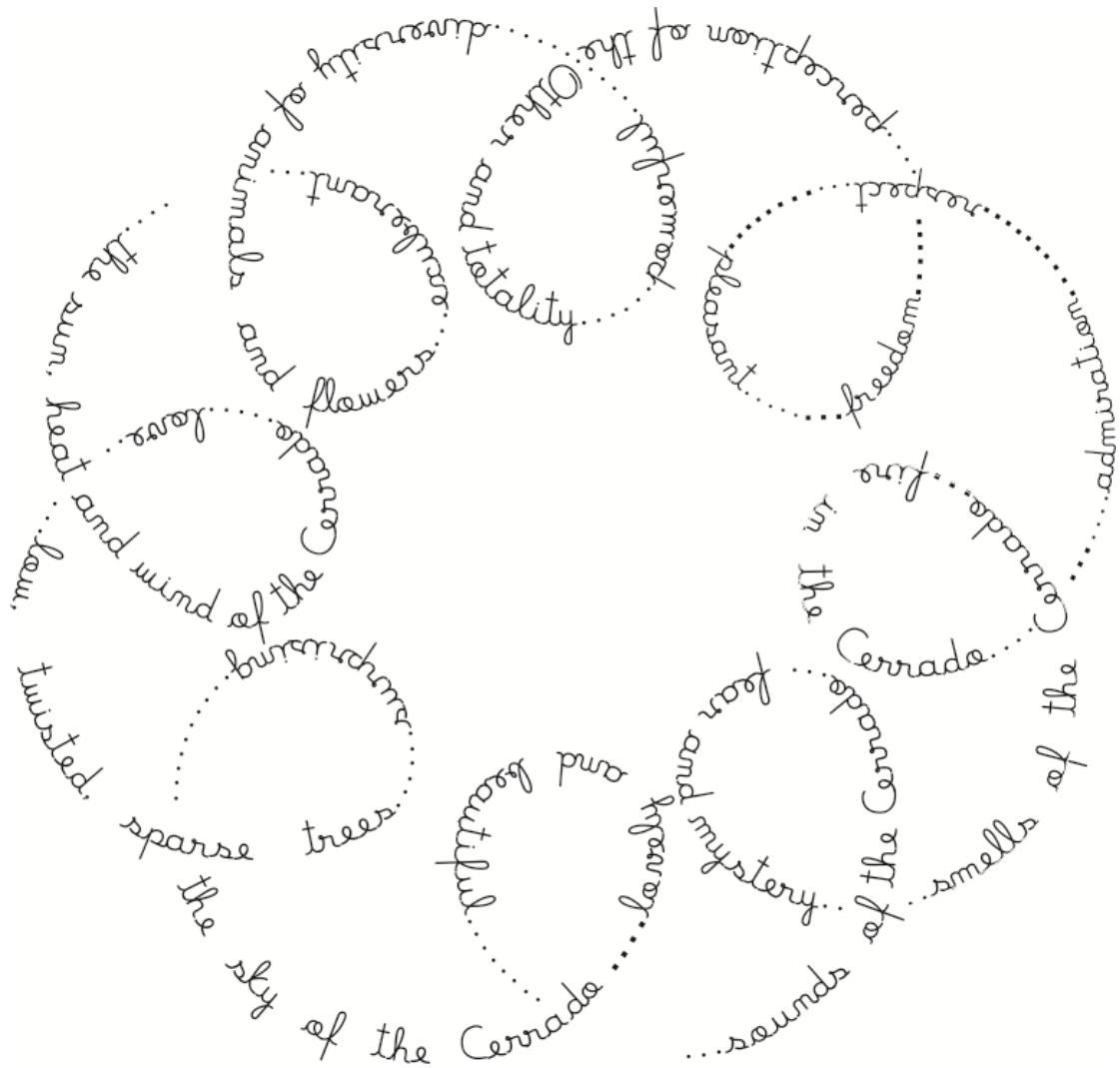


Figure 02: Aesthetic experiences in the Cerrado. Author: Edna Kunieda who kindly drew the image for this study.

We believe that understanding sensitive knowledge is "back to the things themselves" coined by Husserl. Taking this into account, we agree with the philosophical concept of Merleau-Ponty (1962) and other phenomenologists (Chauí 1988; Dufrenne 2002; Payne 2003) that the perception of things and of the other is concerned with the ontology of the sensitive, i.e. we take the sensitive as a pre-reflective area, which refers to a level of experience of the individual that is prior to language. It does not begin and does not end with language, but is sensitive and reflects our involvement with the world. Said in another way, the body knows the world before we can conceptualize it. Distinguishing smells, tastes, sounds and textures are things we do which do not require elaborate abstract thoughts or symbolic and cerebral knowledge (Duarte Júnior 2000). However, something should be pointed out here: feelings are not pure impressions. According to Merleau-Ponty (1962), we learn *with* the senses, but this *with* does not have a physiological or instrumental connotation. The *with*, in this case, refers to feeling attributing meaning. The senses are not separate from affection, as we are trapped in the world and we do not detach ourselves from it to become aware of the world.

In the Cartesian concept, there is a dichotomy between the subject and object, thus the subject is the spectator distanced from the object, establishing a relation of exteriority. Merleau-Ponty (1962), Dufrenne (2002), Gadamer (1987, 2004) and Quintás (1993) refute this perspective when considering intertwining between the subject and the world. In this concept, we experience the world in its inexhaustibility, assuming that everything that exists is sensitive and capable of evoking perception in us. Considering this, we placed the **Cerrado** as being **sensitive** at the centre of the aesthetic experiences. Therefore, the aspects cited by the participants were understood as singular in this type of vegetation, which leads us to believe that, while experiencing these particularities, we are in the Cerrado. In the interview transcripts: E2, E8 and E9 and E12, we highlight the aspects that were cited:

The sky was amazing. Another vivid memory I have is of the Cerrado sky in Brasília on the plateau. It was fantastic! The sunset turned green in the sky! (E2)

*The sun shines on our backs. You are always walking on flat land, then you find a... riparian forest. You have that wonderful contrast, the water is marvellous, it is 30 times more wonderful because of the scorching sun. You can see there are plants, those **thick leaves**. Those **adaptations [to the fire]**... I think it's wonderful! (E8)*

*It's something I like, the sensation of the **wind**. It's not the wind from the forest, but it's a "**green wind**". There is a Cerrado here in São Carlos, where the wind is always blowing... Even when it's been kind of dry, you can feel that the wind has been around that **twisted green** before blowing in our face. And the Cerrado is **full of life**, closing your eyes for a minute, it always comes together, with that sound of something scratching, the **sound of a bird**. (E9)*

*And the other is the sight of the **flowers**. It [the Cerrado] has a more greyish vegetation, a **colour** that's darker, more woody. And then you see **the purple** of a **flower**, the **yellow**, a **white**. So, I think that this sensation of colours is really strong. (E12).*

These reports are related to the reference that Merleau-Ponty (1962) makes to the Maoris (1962) (indigineous people from New Zealand) who identified more than 3,000 colours. They attributed different colours to objects and different structures as a colour is always a colour of an object. The author claims that the sensitive is not subjective, the sensitive inhabits the subject and the world, referring to something else apart from itself. According to him, objects are sensitive and dense, they have colour, volume, thickness, texture, taste, sound and relate to other meanings, with a sense which is inherent. In this concept, "a colour is not a thing, it is not a coloured atom nor a light wavelength (...). Each red is a world and there is a world of red between colours" (Chauí 1988, 58).

In other words, we consider that our perceptions are based on the relationships that we have with the world and not on pure qualities. According to Merleau-Ponty (1962), the sensitive has a role of knowledge in the world that we are, based on relationships between ourselves and the intrinsic character of the observed object. The phenomenological perspective unifies sensitive and intelligible, and therefore the perception is born from the encounter of the subject with the world. According to the author, when being perceptive, we use the whole body and when we experience the world cohesively, we go through an aesthetic experience. In aesthetic enjoyment, we have an intersensorial experience whereby everything we have learnt is combined and is interchangeable. Abram (1996) gives examples of civilizations where the concept of

synaesthetic is and has been fully experienced. In the phenomenological concept, this interaction takes place at the pre-reflective level, where there is no dichotomy between the sensitive and the intelligible, between body and mind. It is direct, body knowledge which allows intellectual and reflective processes.

Some of those interviewed see the Cerrado as landscape which refers to the breadth of the horizons, while others hold on to other details, such as the shapes of the trees and the adaptations to fire. Regardless of which characteristics were cited, all the participants refer to the Cerrado as beautiful, stunning and powerful, as we can see in the following transcripts:

It is definitely a landscape that I like. I think it's beautiful, I think it's beautiful to look at, even those trees which are not very tall. That thing that you can reach, that you keep looking at from a distance. You see it a bit spread out, I think it's really beautiful. (E2)

*The hills around, the valleys, all the vegetation. And that light, you know? The breadth of the horizons, the exuberance of the vegetation. The richness of insects, you know, and the **birds** first and foremost. Because after that we discovered other animals, **mammals, snakes** and this and that, right? But you know, a lot... there was a lot of movement, you know, in the air. (E4)*

*You know that part of the Cherry tree from Rio Grande that we were talking about, that we showed in the Cerrado? (...) And whenever I think, I remember the Cerrado, I think... (...) why there, I don't know, you see the Cerrado from far, right? So it kind of looked like a frame, a picture. (...) So, you looked at that **open landscape, sunnier**. (...) My image is of the **beautiful Cerrado** on a sunny day. (E10)*

*Actually, it's the vegetation that I most like. That thing of being... To see **beauty** in a load of **twisted and rough trees** [laughs]. (...) And then, it was another thing that really stood out, this strength, **this vigour that the Cerrado has to be born again** with this type of event [fire], right? (E12)*

According to Quintás (1993), the expressive power of aesthetic experiences lies in the excitement of discovering unity in the midst of a multitude of elements, while the manifestations of nature are marked by a sign of contrast and in additional diversity. This relationship unity/variety is potentially a generator of beauty. When talking about beauty in the Cerrado, some narratives showed the need to understand this environment, some even reporting on the Cerrado having a "hidden beauty":

*So, when you start **getting to know the Cerrado**, it's so beautiful, you take your hat off to it. (...) you start getting to know the Cerrado and understand that there are differences within the Cerrado, you start falling in love with, with, I mean, so much **beauty** and functionality in the Cerrado. (E5)*

*And there are small details, I focus on details, you looking up close is something so beautiful. The **furry leaves**. Because, you know, **it's not obvious beauty**. It's not something you look at and think it's beautiful. When you look a little more carefully, you see. You have to pay attention so you can see all the beauty of the Cerrado. (E13)*

This *looking more carefully* is related to time in the aesthetic experience. It is *looking* that requires us to be willing to notice and this is against the grain of a society which dominates what is immediate. Payne and Wattchow (2009) carried out research with some undergraduate students using what they call *slow pedagogy*, whereby

temporality is a core aspect of experience, making it possible to explore different body and visceral connections in the world, which refers us to the *corporeal turn* discussed by these authors. Gadamer (1987) also puts forward two aspects in this analysis: being open to aesthetic experience and time. The philosopher argues that the aesthetic experience requires us to learn to stop ourselves, or in other words, it is about a specific way of taking our time over it. Gadamer (2004) uses a metaphor about a game and work of art as being analogous to our own experience of understanding. The experience of art requires launching into the game, where we, the spectators are part of the game just as we are part of the world of our experience. We do not control the game and, nor do we control the world. Agreeing with this view, we consider that the aesthetic experience provides contact with the non-human world (perception of the Other), while bringing perception of totality. Dufrenne (2002) considers this to be a paradox because nature is only expressive and only resembles man when inhuman. These two extracts from interview E11 illustrate this aspect:

*To experience nature. To experience contact with... With the **non-human world**, let's say. (...) **freedom**. I remember us lying down in a more open area there in the Cerrado gazing at the stars, we stayed for hours. It's really interesting. And it was good that we saw... We saw a **maned wolf** once. (E11)*

*...**tranquility, peace, freedom**. Feeling this breeze on your skin, feeling that **you are also part of all this, right?** It's not an isolated thing, you're **integrated**. I don't know, it could be in other places, but in the Cerrado we felt it, I felt it. (E11)*

For all its "hidden" diversity, the adaptations to fire, the twisted trunks and dry environment, the Cerrado is considered a surprising landscape for E4. Dufrenne (2002) claims that when face to face with the natural spectacle, we get caught up in the unpredictability of nature and this leads to admiration, emotion, as E4 and E14 describe:

*Nature, the landscape was something that, like, **had an impact**, you know. So, like, the **light**. The **green**, I don't know if it's because of the brightness, something stood out, right? (...) It makes you feel like you're in the middle of something very **powerful**.(E4)*

*The experience of you walking, cycling, whatever, in the middle of the Cerrado (...)And **suddenly**, going to that environment where nature, where the trees are relatively tall and are closed in and the sudden appearance of water... There's such an **incredible difference in temperature** between being inside that environment and outside the environment. (E14)*

According to Merleau-Ponty (1962), perception is communication and communion. The subject and object are unified in a symbiosis because the intersensorial experience fills the object of humanity. Adding to this, Dufrenne (2002) claims that the subject is only entirely present in the object when sensitivity is raised to feeling. We identify that fear and mystery are aspects that can appear during aesthetic experiences. This is particularly challenging for environmental education as we have to take care so that fear and mystery are transformed into admiration and respect and not into repulsion and aversion. The E8 interviewee relates her experience considering this:

*We were walking and the pool of water was a **mystery**. That thing of mystery and wishing you could be inside it. And we were walking and there was a story that an anaconda lived there. It was... I don't know, like, something out of Indiana Jones, right? [laughs] To go inside, to get to*

*know it. It was a challenge in nature, right? It wasn't just a place to relax, it was a **challenge!** (...) But I see, for example, my sister and brother, who also went through this with me, they really weren't like that! [laughs] So, I don't know where that comes from. For example, my sister, she's really **scared**, really scared of everything that's natural. (E8)*

In two studies carried out in Brazil, Valenti (2014) and Hofstatter (2013) identified this conflicting topic of fear and myths related to pumas and jaguars and emphasized that we must think cautiously about the subject and move towards an environmental education that demystifies rejection and rescues intrinsic values of biodiversity, considering the historicity, the psychosocial and economic aspects of the place.

Dufrenne (2002) and Quintás (1993) list the sublime as the pinnacle of aesthetic perception. According to the authors, when an event or reality is presented in all its greatness, we feel profound admiration and respect, even being completely amazed by the aesthetic experience, which is considered sublime. This perception of the sublime also happens in situations where there is fear and apprehension, when the threat gives way to greatness, or in other words, to penetrate into the sublime atmosphere, terror needs to give rise to serene and lucid wonder. This wonder only takes place if the highly valuable contemplation does not evoke resentment in the soul, but rather gratefulness (Quintás 1993). Despite agreeing with the authors about the possibility of threat being seen as admiration, we disagree with the hierarchical aesthetic categories, which we will return to later.

According to Brooks, Wallace, and Williams (2006), visitors to the Rocky Mountain National Park in Colorado (USA) reported that challenging, apprehensive, stressful and scary experiences are also important to identify with the place. In an article about the book "Lord of the Rings", Morgan (2010), as a strategy in environmental education, criticizes the line of research called *significant life experience* (Chawla, 1998) as it focuses on positive experiences. The author argues that experiences of fear and mystery are our link to the environment. The E6 and E10 participants relate that these experiences mainly took place at night, an important aspect when analysing the time to do activities in the Cerrado:

*I was a bit **scared** because you didn't know what was happening there. And you **heard the animals**. And then there's the issue, like, you don't have the light from the city. You could **see the sky! See stars**. It's another sensation! Because in the dark, like, you start getting in touch with other senses. (E6)*

*I think it's different, walking in a darker environment. We went with a torch, that thing of **surprise** "what will we find further on?" (E10)*

Although none of the interviewees mentioned the term "sublime", some reports talked about this loving feeling, profound admiration and respect for the greatness and exuberance of the Cerrado. Some participants found it difficult to express what they were feeling:

*[The Cerrado] It's something that **takes over!** It takes over your senses and takes over everything. (E4)*

*Oh, because it's beautiful!!! [laughs] Because it's the vegetation I like most [laughs]. Because I love walking in the Cerrado, I love seeing the **colours of the Cerrado, smelling the Cerrado**. So, that's it. It evokes **connections, emotional channels**. (E12)*

*Oh... [silence]... Because it deserves to be defended. Because I don't agree with arguments of "oh, let's defend why there are medicinal plants". Let's defend, why, I don't know, how someone defends their house or defends someone's life. Because it's there, it deserves it. It doesn't deserve to be destroyed, you see? It deserves to be protected, you know? It's something more internal, I don't know. Oh, **such difficult questions** [laughs]. (E13)*

In an investigation about different ways of learning, Payne (2005) compares two ways of experiencing a beach: the artistic and scientific. Firstly, the participant studied the beach according to physical-chemical parameters. Returning to the same point, some time afterwards, she had an immersion experience and represented the experience she went through by other ways of expression (drawing, dance, music). The participant, as many of those interviewed in this study, found it difficult to put into words what she felt, saying that the first type of investigation had been easier. Payne (2005) discusses the limitations that we, researchers have, in representing the results from our investigations. Considering this, the non-representational theory (Thrift 2008) raises important arguments that research has limitations both concerning accessibility of data, as well as the way to represent it. The difficulty of expressing oneself was recurrent during this investigation and made us reflect on the fact that getting in touch with feelings and emotions and representing them are challenges to be discussed at length in qualitative research.

Another feeling that the interviews show is how pleasant the Cerrado is. Being in this environment brings peace and tranquillity. According to Quintás (1993), the pleasantness has a connection to the beauty and is a feeling that has a very low place on the scale of values. For the author, the aesthetic categories are hierarchical, and the highest is the sublime. We, on the other hand, disagree with this organisation because we think that all feelings are equally important in the aesthetic experience. The following extracts illustrate this discussion:

*It's good, because it's **calm**. Because it's a more **tranquil** place. It's different from the usual. (...) It's... I really remember, like, **the smells**, also, there's a different smell from the city. A smell of the forest. At **night**, the **smell** changes, I think. And you discover things, learn things. (E16)*

*When we arrived, it looked like an abyss, full of **green**, of the **Cerrado**, of **life**, some **rocks**. Like, I sat down for two hours. And that was really powerful, it really touched me, I said "this is really **beautiful!** It's very important... I don't know, loads of **animals** live there, loads of **plants** are there. This is really important because look what I'm feeling right now looking at all of this!". And I don't know... (...) it was **peaceful!** There was **silence**, like, I **heard a waterfall** in the background. (...) And then, when I saw that, I was so **emotional** that I said (...) "my God, how **beautiful!**". (E17)*

Bai (2004) argues that, although aesthetic enjoyment evokes attention, we are not physically tired. On the contrary, we feel revitalized. These feelings of peace and tranquility, described by E16 and E17, are in line with the uplifting of the spirit cited by the author. Another aspect identified in these extracts is shown here:: sound. According to Ingold (2011), sound is not an object of our perception, it is not mental and not

material, but a phenomena of experience, or in other words, of our immersion and mixture with the world in which we find ourselves. Fisher (1998), while defending that sounds of nature provide aesthetic enjoyment, says that the silence in nature is the human absence which enables us to hear the wind, birds, insects and water. Winklen (2002) also questions the appreciation of the visual aspect in the aesthetic experience and attempts to describe other ways of perceiving nature. Based on this, we observe how important it is for us to promote experiences which make this immersion in the Cerrado possible, being concerned about different ways of being enchanted with the world.

In this study, we agree with Ingold (2011) when he claims that we are so mixed in the world that we form a *meshwork* instead of a *network*. The author says that the term *network* refers to the concept of elements and connections of a matrix, while *mesh* focuses on relations and processes of matrix formation: “*things are their relations*” (Ingold 2011, 70). It is in this way that we observe the aspects in this investigation, which are reciprocal processes, non-linear, in constant movement and form, as a whole, the aesthetic experiences in the Cerrado. Based on Ingold (2011), Carvalho (2014) argues that living in the world is joining together with the education process and permanently transforming live, human and non-human things.

5. Final Considerations

The image shown in Figure 1 is an attempt to understand how aesthetic experiences occur in the Cerrado. From the interviews, we observed that the Cerrado is sensitive and the aspects are in constant flow and do not have quantitative or qualitative gradation. We are not proposing categories as Dufrenne (2002) and Quintás (1993) do, nor a hierarchy between the elements which emerged in the interviews. We observed that all the processes are a mosaic and contribute equally to the aesthetic experience, providing an intrinsic connection with the Cerrado. We hear the sounds, we are aware of the smells and we observe the twisted trees of the Cerrado, while being enchanted and surprised. The mystery of the Cerrado and the adaptations to fire can become sublime in the same way that the scorching sun and the wind on our face bring us peace and tranquility. The beauty causes admiration, admiration that makes us search for explanations about the power and mystery of beauty so that there is constant movement among everything that is observed.

One aspect that came up in this study and relevant to environmental education practice is the feeling of fear as a challenge and curiosity, and not as a threat. Educational mediation in this process is fundamental so that this feeling is transformed into admiration and respect in the face of power and the exuberance of nature. It is our task, as environmental educators, to develop activities and ways of communicating in which investigations, curiosity and what demystifies common sense are present. Therefore, mystery and the unknown, and even the tragic, become sublime (Dufrenne 2002). These aesthetic experiences must require our attention, imagination, creativity, but above all, admiration and respect.

The temporal aspect was identified as relevant to having an aesthetic experience. We need to reflect on: what logic and/or model are we practicing? Which curriculum are we proposing? Which content are we prioritizing? How do we face these challenges? This study made us realise how many details, such as the colour of a flower, the furry feel of a leaf and the texture of a trunk are observed and mean feelings. We attribute sense to the sensitive and we link this to nature. However, we must assume that

strategies to experience them intentionally are central issues in environmental education.

Finally, we reflect on the theoretical-methodological limitation of this study and the possibilities of research in environmental education. The difficulty in understanding, expressing and representing feelings, emotions and affective ties accompanied us while collecting and analysing the data and we recognise the challenge of research in relation to what we can “get to know” and “reveal”, according to Thrift’s non-representational theory (2008), leading us to look for alternative theories which face this challenge. We consider that the investigation answered some questions and proposed objectives, but other perspectives could broaden the understanding of the phenomenon studied. Carvalho (2014) and Payne (2013) comment on broadening the phenomenological perspective in environmental education, discussing the contribution of some research in anthropology which has been studied using *sensory ethnography* (Pink 2009) and *walking ethnography* (Ingold and Vergunst 2008) to investigate aesthetic experiences in nature. We believe that by asking these questions, we continue to look for ways, and research methodologies which allow us to advance in environmental education research.

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SEÇÃO 6- ARTIGO 5

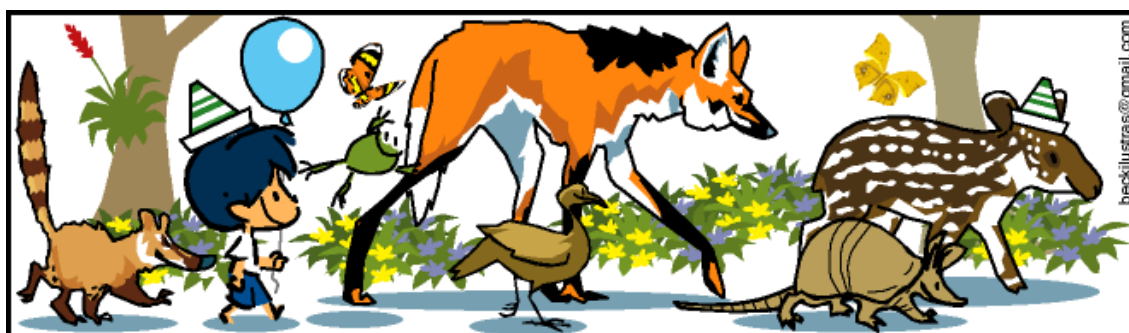


Figura 1: Tirinhas de Armandinho. Autor: Alexandre Beck/ 2014.
Fonte: <http://tirasbeck.blogspot.com.br/>

Walking in the Cerrado (Brazilian Savannah): interpreting the aesthetic experience

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Walking in the Cerrado (Brazilian Savannah): interpreting the aesthetic experience

Abstract: There is a “rise of walking” in social sciences and humanities over the last decade as a strategy for exploit further understandings of lived experience. The conception of movement is viewed as ontologically prior to epistemological representations and has contributed to the development of different perspectives of ‘mobility. Thus our focus in this study is on how movement and ‘walking’ in the Cerrado (Brazilian Savannah) are ontologically and epistemologically co-generative in the bodied production of eco/soma/aesthetic meaning-making of six participants' narratives of this investigation. We organized our analysis by topics: flora and fauna variations; different kind of vegetations; weather/season and the glimpse extension. The Cerrado is not a fixed sight or passive and unchanging form of vegetation. It moves, has movement, is made by movement and we move along with it. The aesthetic experience of the Cerrado happens through the mobile senses, thus the corporeal turn should be discussed and considered emphatically within the environmental education research and practice.

Key words: walking, Brazilian Savannah (Cerrado), environmental education, phenomenology, mobile investigation

Introduction

An emerging challenge for environmental education is to fuse ecocentric and somaesthetic dimensions of affective and pre-reflective consciousness into inquiry, research, curriculum and pedagogy. In the wake of the “corporeal turn” now so prominent in theory (Gallagher, 2005; Shusterman, 2008; Sullivan, 2011, Sheets-Johnstone, 2009), the formulation of a phenomenology of eco/soma/aesthetics (Payne, 2013) in education is fundamental to the tasks of interpreting and representing the ‘materiality of experience’ (Connolly, 2010) that brings into affective play the significance of perceptions, sensation and relations with various environments and more/other-than-human natures. This major challenge to the often ‘non-representational’ (Thrift, 2008) dimensions of human-environment and culture-nature relations require researchers to clarify the deeper ontological-epistemological assumptions and meanings they invoke educationally in the quest for enhanced ‘socio-ecological’ relations. And demands new methodological innovation in inquiry and investigation about how our vital and sentient bodies are already ‘in’ the world and ‘of’ nature despite the overlays of numerous socially constructed reconstitutions of self-environment (Payne, 2013). Within the associated rise of interest in ‘mobility’ theory

and methodology (Ingold, Vergunst, 2008; Kusenbach, 2003; Pink, Hubbard, O'Neill & Radley, 2010), our focus in this study is on how movement and walking (in nature) are ontologically and epistemologically co-generative in the bodied production of eco/soma/esthetic meaning-making. Our empirical task in this study of walking in the Brazilian savannah (Cerrado) is to make some representational sense of how one of 'nature's' environments offers the sensory ethnographer (Pink, 2009) insights into the 'synaesthetics' (Abram, 1996) or 'sensorium' (Stoller, 1989) where our bodied being is centre-staged in inquiry to make clearer the contribution of the senses, intuitions, perceptions, affordances, responses, emotions to the materialization of eco/soma/esthetic experience. This 'step' is a preliminary one that informs and mirrors those interpretations, understandings and explanations of human, social and environmental experience as historically, socially, politically and culturally constructed (Payne, 1999; Sullivan, 2011), then framed and represented in the field of environmental education and its research (Payne, 2009).

Conceptualization.

In reconceptualizing inquiry and reframing approaches to research that might helpfully assist the posing of different research questions and theorizing about, for example, the vitalistic, animated, sensual affective importance of eco/soma/esthetics as a generator of meaning-making and, potentially, experiential precursor to 'learning' and their commensurability with appropriate methodological innovation, we present and discuss a possibility widespread in Anthropology based on *movement* (Ingold, 2000, 2011). In broad terms, this conception of movement is viewed as ontologically prior to epistemological representations and has contributed to the development of different perspectives of 'mobility.' *Movement* is not a unidirectional practice that moves us from Point A to Point B. To move is to be immersed, to *perceive in it* (Ingold, 2011), to feel with the senses and assigning meanings (Merleau-Ponty 1962).

According to Johnson (2007), Ingold (2000, 2011), Sheets-Johnstone (1999), among others, the way we perceive and act in the world emerge through the

sensorimotor capacities and this recruitment is not compartmentalized in a way that each sense has its own via. Instead, what happens is similar to the conception of *synaesthesia* proposed by Merleau-Ponty (1962) and reiterated by Abram (1996) which means the intertwining of sensory modalities. Agreeing with Merleau-Ponty (1962), Abram (1996) claims that our primordial and preconceptual experience is inherently *synaesthetic*, disclosing the things and elements that surround us not as inert but as expressive subjects, entities, powers, potencies. For Ingold (2000, 2011), Johnson (2007) and Kusenbach (2003), meaning emerges from movement which happens beneath the level of our conscious awareness, therefore to figure out the meaning of our bodily encounters with the world; we need to probe deeper into how those movements constitute our bodily perception and consequently our ethical and political being and may influence the curriculum and the “learning” theory”. We must look “more deeply into aspects of experience that lies beneath words or sentences” (Johnson, 2007, p. 17). In this sense, we should focus on the importance of bodily movement once life is movement and we perceive in movement (Ingold, 2000, 2011).

Johnson (2007) claims we have visceral connections to life since we are born as creatures of the flesh and meaning comes from our bodily perceptions, movements, emotions and feelings. Those visceral connections address the field of aesthetics, but not aesthetics as the study of art, but as the study of everything that has strong connections with our embodied body (Hermann, 2005; Johnson, 2007; Marin, 2006, Shutterman, 2008; Sullivan, 2001). Aesthetics goes into the understanding of visceral connections with the world and the human capacity to make and experience meaning. Johnson (2007) adds phenomenology has been marginalized within some fields of research but some recent investigations in neurosciences seems to emphasize the

importance of embodied mind to the development of emotions and cognitive issues, so aesthetics comes to be seen not as merely subjective judgment and taste. Indeed, many interdisciplinary approaches (Gallagher, 2005; Johnson, 2007; Sheets-Johnstone, 2009; Shutterman, 2008) have been arguing about the importance of research and discussion of the embodied mind or *somaesthetics* (Shutterman, 2008) as crucial to our cognitive, ethical and political dimensions (James, 2006; Payne, 2013; Sullivan, 2001). This recent phenomenological philosophy orientation proposes the “corporeal turn” (see also Payne & Wattchow, 2009) and focus on body as the centre and origin of our being in the world, i.e., a mindful body and “non-separation of thinking and doing is evident; so also is a non-separation of sensing and moving” (Sheets-Johnstone, 2009, p. 61).

Phenomenological investigations have been arguing that our experience of the environment is fundamentally based on our living body (Johnson, 2007; Kusenbach, 2003). Casey (1993), influenced by Merleau-Ponty, describes how living bodies’ movements constitute our primordial sense of the environment as a diversity of places. For Sheets-Johnstone (1999), we *think in movement* and agreeing with this presumption, Ingold and Vergunst (2008) claim that body itself is grounded in movement at the same time that body is foundational to culture, thus they understand the body’s movement as an existential ground for the production of cultural form. According to Ingold and Vergunst (2008), social investigations have not devoted enough attention to movement once we are social beings because we are in movement, so walking, riding, gardening (and other bodily movements) are not only an expression of thoughts and feelings, but it is itself a way of thinking and of feeling through movement and the root of the lived experience.

In his book, *A Philosophy of Gardens*, Cooper (2006) advocates that in experience of a garden all of the senses may be engaged – sight, hearing, touch, smell, even taste- because “we do not just stare at a whole garden from a window or a terrace, but look at it as we move around or through it” (Cooper, 2006, p. 30). The aesthetic experience of the garden happens in movement: flowers grow and die, trees shed their leaves, gardeners can themselves make very considerable changes to a garden – altering its layout and introducing new species. Thus, the perception of a garden is about those phenomenal aspects that are continually changing, due to alterations in the conditions of light, weather, season, natural or hand-made. The author is influenced by Merleau Ponty's and Bachelard's ideas and formulates his assumptions which the garden "must modulate an attitude of care towards the plant. (...) To exhibit care, whether towards querulous people or dumb life, is to manifest a virtue. It is a virtue that stands close to that of respect for life” (Cooper, 2006, p.95).

Pink (2009) strongly argues in defence of a method which considers the multisensoriality of experience and practise to access other people's way of perceiving by joining them in the same daily activity. According to her, sensory perception is not spoken of at all, our social interactions are not only based on verbal communications and visual impressions. Rather, they are fully embodied in multisensory events, so researchers might be open to multiple ways of exploration and reflection on new routes to knowledge. Pink (2009) formulates this alternative technique based on Ingold (2000) who places human perception at the centre of his analysis. Our experience is embodied and the researcher learns and knows through her or his whole experiencing body. Ingold (2000, 2011) gives primacy to movement rather to place. He argues that places are produced from movement because we are between the comings and goings of human

beings and other organisms to and from them, from and to places elsewhere or as Cooper (2006) says we perceive the movement of season, sun, trees, smells and so on. In this sense, we are always emplaced because we are always in movement. Following this, Pink (2009, p.35) states that “by requiring attention to the roles of perception and action, Ingold thus invites us to understand knowledge transmission as something that occurs through our emplaced engagements with persons and things”. In summary, her proposal is not an analyses of sensory and cultural perceptions, “but the use of the ethnographer’s own sensorial experiences as a means of apprehending and comprehending other people’s experiences, ways of knowing and sensory categories, meanings and practises” (Pink, 2009, p. 46) in order to understand other people’s experiences through the senses.

Ingold and Vergunst (2008) focus on *walking* to better understand the variety of embodied meanings because for Ingold (2011, p.88) “to perceive the environment is not to look back on the things to be found in it, or to discern their congealed shapes and layouts, but to join with them in the material flows and movements contributing to their- and our- ongoing formation”. Besides, walking is not restricted to humans, but also explored by animals and its potential consists in boosting social relations between humans and non-humans (Ingold & Vergunst, 2008), which is a key point to this investigation. Lorimer (2011) entitles “new walking studies” as an umbrella term to characterise this technique used in multidisciplinary forms of research and practice. Indeed, there is a “rise of walking” in social sciences and humanities over the last decade (Pink, Hubbard, O’Neill & Radley, 2010) as a strategy for exploit further understandings of lived experience: see “shared walk” (Lee & Ingold, 2006), the “natural go-along” (Kusenbach, 2003), “commented walks” (Winkler, 2002), “walking

interview” (Evans & Jones, 2011), “mobile ethnographies” (Porter, Hampshire, Abane, Munthali, Robson, Mashiri, & Maponya, 2010). The city has been explored as a key setting for walking ethnographic investigations (Horton, Christensen, Kraftl & Hadfield-Hill, 2014; Pink et al., 2010; Yi’ En, 2013), but there are also some examples in “green areas” or outside the cities such as “pilgrimage” (Slavin, 2003), “botanic garden” (Hitchings & Jones, 2004) and “landscapes” (Cato & Myers, 2011; Wylie, 2005) and “rural environment” (Porter et al., 2010).

Although each work focus on a different research question, all of them takes as assumption that walking with others is capable to get closer to the sensory and affective dimensions of other people’s everyday, leisure or festive practices. Following this, what we argue here is that walking provides a more sensitive and deeper approach to “discover”/ “unveil” the nature of aesthetic experience of nature. By doing that we are able to describe and analyse actions, emotions and feelings inaccessible in interviews and observations, i.e., “walking is not just what a body *does*; it is what a body *is*” (Ingold & Vergunst, 2008, p. 02). It is not to say that this method is capable to access all the elements of lived experience, but it offers an alternative form which may expand data collection. In this sense, Kusenbach (2003) reminds us they are pursued in combination and the argument is not one of superiority but to explore different perspectives and angles that each technique provides.

One aspect that follows this discussion is the necessity to overcome the modern western sensory categories and be open to alternative cultural constructions. About that, Pink (2009, p.79) brings this important role to researchers when she states one of the tasks “is to learn how to interpret her or his embodied sensory experiences through other people’s cultural categories and discourses, and as such to participate not only in

their emplaced practices but in their wider ways of knowing”. From this, we advocate that this method also proposes a deep reflection on the intersubjectivity between researchers and participants.

Here lies another strategy developed by Pink (2009), *sensory ethnography* which brings to discussion a plenty of possibilities to be explored that occur during movement: vision, hearing, taste, smell and touch. Once the senses are interconnected and interrelated (see also *synaesthetic* in Merleau-Ponty 1962), we are *more* capable of grasping the pre-reflective experience, since ethnographic observation or interview have limitations to access all aspects of lived experience (Kusenbach, 2003; Pink et al., 2010; Myers, 2011).

The present study aims to grasp the nature of eco/soma/aesthetic meaning making experience of participants ‘walking’ in the Cerrado (Brazilian Savannah) through some specific questions: what do participants perceive along a walk in Cerrado? What are the senses involved? Is there any sense that is more manifested? What elements of nature are perceived? What feelings are raised? What ethical and political attitudes do emerge? How can we represent those emotions?

Contextualization

Given the importance of the *geo-epistemology* in research (Canaparo, 2009), we start by contextualizing the historical, political and aesthetical relation between society and this kind of vegetation in Brazil. This is crucial to comprehend the meaning of the experiences in this biome, which is the second largest vegetation in Brazil but, historically, has low aesthetic value (Duarte & Theodoro, 2002; Gomes, 2008). Cerrado is a priority area for conservation (Hotspot) and considered the most threatened Brazilian biome in destruction due to bushfire, exotic species; hunting, road kill and

deforestation to diverse reasons but, mainly, agricultural and urban expansion (Alho & Martins, 1995; Brasil, 2007; Duarte & Theodoro, 2002; Gomes, 2008, Klink & Machado, 2005; Nepstad et al., 1997). According to those studies, Cerrado has a high endemism and species richness being, but remain 21.6% of the original vegetation since this biome is under pressure of human occupation. The devastation of the Cerrado began in the eighteenth century, since colonization, which was associated with the exploration for gold and other precious stones. Cerrado presents a flat topography and low cost, related to the soil with few nutrients which results in exploration and devastation until nowadays (Duarte & Theodoro, 2002).

According to Bizerril (2001, 2003, 2004), the perception of the Cerrado as a poor of plant and animal species, composed of stunted plants due to water scarcity and frequent bushfire, and thus devoid of beauty and usefulness to society, seems to be present in the discourse of Brazilian population. Thus, various strategies of environmental education (Ambrósio, Borém & Santos, 2010; Benites & Mamede, 2012; Berlinck & Lima, 2007; Cazoto & Tozoni-Reis, 2008; Valenti, Lima & Oliveira, 2009) have been conducted in order to work with the conservation of the Cerrado. Those papers report EE experiences which focus on interpretive tracks, community's participation or other activities. Those programs have effective outcomes, but the Cerrado's deforestation remains. Our proposal is to contribute to those environmental education programs by bringing to discussion the pre-reflective experience of this biome through a hermeneutic phenomenological perspective and mobility methodology.

Methodology

Given the diverse of techniques used during the walking or sensory ethnography, Pink (2009) states this is an outcome of the sensory turn in the social sciences and humanities

resulting in a series of recent innovations and the explorations. By reading the articles based on this method, we cannot identify a model or pattern to follow which enables us to design our techniques according to our context and arguments. Said that, our choice to develop this inquiry with participants who already have contributed to an investigation about the aesthetic experience in the Cerrado by affording interviews to the lead researcher (Iared, V.G.). At that moment, we sought for people who were deeply bond with the Cerrado, which means an affective memory related to this vegetation. Based on our own experience, we listed four groups of people in our city (São Carlos, São Paulo, Brazil) who potentially could be involved with this topic. As we previously knew those groups, it was easier to contact them by email and 17 persons accepted to be interviewed between June and December 2012. Their profile was academic once all of them had or was about to have undergraduate degree. Even those who already had a degree still developed directly or indirectly activities with the universities in São Carlos.

Kusenbach (2003) argues about the importance of expanding the data collection and walking ethnography is not supposed to be used in isolation (Myers, 2011; Pink et al., 2010). So our option was to develop another research technique with the same participants in order to deep understand the aesthetic experience in the Cerrado. For the walking practice, we invited the 17 participants for a walk in this landscape. Kusenbach (2003) found that walking with more than one person can be very productive, because the presence of a partner or a friend might reduce the discomfort about being followed in. In this sense, our choice was to “select” two groups of participants (eight in each one) and observe four persons in each walking. However, only 10 were available to contribute and due to different availabilities of day and time, we developed two walks in

November 2014: one with two participants and another one with eight participants. The lead author (Iared, V.G.) did participant observation during three hours (each walk), observing two persons in the first walk and four in the second walk. After the walk, the group (in both experiences) had a post-walking discussion as an opportunity to talk about what had just happened.

The area was easy access and already known and frequented by these participants. According to Evans and Jones (2011, p. 850), “the most important choice that researchers must make when designing walking interviews is whether the route is set by interviewer or the interviewee”. Thus to reverse the logic between researcher and participant, we explicated to them in advance they could choose the track. The same choice was made with the conversation, when we discarded semi-structure interviews and developed a more spontaneous experience in order to grasp a daily activity. By doing that, the researcher navigates, rather than conducts, the flow of conversation (Myers, 2011).

Vergunst (2011) claims ethnographers should be cautious of adopting the “high-tech” tools because what we record is indeed surely influenced by the technique and our focus must be what happens in movement. Since our option was to be as close as possible of the participants' experiences, we discarded the tape recording, so our body was capable to be immersed in the Cerrado to grasp the movements, including my body movement. I made quick notes but then writing up full notes of conversation and observation immediately after the walk.

We will call our participants by random names to preserve their anonymity. Thus, there are: Ann and Bettina in the first walk and Cassandra, David, Elvira and Fred in the second walk. We organized the analysis by thematic interpretation only for the

senses/ affective responses when moving in the Cerrado and sometimes, I am going to write in first person singular once I was immersed just like the participants of this study.

Narratives

For van Manen (1990), when we describe, we also interpret so it is not a reasonable task to discuss phenomenology separated from hermeneutics. Rather, van Manen (1990)'s methodology is hermeneutic phenomenology. In order to reframe this perspective of research, Payne (2013) urges narratives are forms of representation which recapture this body-time-space experience of nature and consequently *ecobecoming*. Thus, it is pivotal to highlight that I was embodied in the Cerrado in the same way the participants were and what I interpret and represent here are narratives written through my perspective that is intercorporeal and intersubjectivity.

During the walk, it was very common the emergency of daily and personal issues, because the participants already knew each other and had a close relationship at other moments. This was very evident in the second walk when we were a bigger group. In addition, controversial discussions of political and management were also frequent, especially in the second walk again. Although we do not treat such data in this study, it is important to mention that several aspects emerged during the route. Our focus in the study is the sensory involvement and the movement, so we present the 6 narratives and then organized our interpretation by topics: 1-) Flora and fauna variations; 2-) Different kind of vegetations; 3-) Weather and Season and 5-) the glimpse extension.

Narrative 1 - Ann- First walk

As we started to walk, Ann observed the landscape and commented it had been a long time that she did not come to this area so it was great to be back. So we walked along the narrow firebreak and Ann was concentrated on the bush at the side of the dirt road. Ann saw a fruit and took a camera in the bag. From that point, she photographed all the route. Ann walked touching the leaves and the trunks, but talking with me and Bettina. Sometimes, she sighted something in the woods and called the others to share the finding, for example, a bee that she had never seen before. She was delighted by this

bee, so she tried to take pictures but gave up as she was afraid to be bitten. During the walk, we did not discuss what route to follow; we just walked through the traditional trail that exists. Before entering a denser area, Ann heard a wing beat of a bird and looked up trying to find where the bird was. As we entered into the bush, the pathway was narrower and we were forced to walk in a single file. Ann was annoyed with a bee that was around her, but was still observing the fauna, especially the birds. Outside the denser area, Ann spotted a bromeliad and commented it is good to visit the Cerrado in different seasons, so we can perceive the diversity of flowers. At two points, Ann saw an ant carrying a leaf, she commented how bigger the leaf was and tried to take pictures of that scene. We realized that we were "lost" when we were in eucalyptus grove and Ann was faster than before, but even so she saw footprints on the ground and juggled to be agouti. We reached the Cerrado again, and Ann was slow and attentive to the surroundings, pointing to footprints and plants. At the end of the trail, Ann and Bettina were surprised by an armadillo and then a lizard crossing the narrow firebreak about 30 meters far from us. They stopped at the point where the armadillo entered into the woods and tried to listen or see some traces and were happy when saw something moving in the bush.

Narrative 2 - Bettina- First walk

Bettina walked very close to the bush along the narrow firebreak, very quiet and slow in her movements. She was touching the leaves and the trunks, observing and smelling all the route. She joked she was doing the opposite of what many guides told to children: "do not touch and take anything from nature". She commented the beauty in the Cerrado is precisely the hairy, velvety, thick and thorny leaves. Ann pointed a bee that she had never seen before, Bettina exclaimed, such as delighted as Ann, she had never seen a bee so colourful. Bettina, Ann and I did not agree about any route to follow, we just kept walking through a traditional trail and stepped into a denser area of the Cerrado. Bettina was the last one in the single file and she kept looking up to the sky. She was walking even quieter, listening to the sounds and said the noise of the road was almost inaudible inside the bush. Ann tried to take picture of an anthill and it reminded Bettina how important the details were. From that point, we went to an artificial lake that had been totally dry for months. Bettina had never seen the lake like that, "it was heartbreaking", according to her. Bettina walked faster when crossing the eucalyptus grove and when we reached the Cerrado area again, the sun came out. Bettina said it was better to walk in a cloudy day and we kept walking when she asked to stop in a shadow tree: "here is fresh". At the end of the walk, Bettina was pleased by an armadillo and a lizard who crossed the pathway: "that was unexpected!", she said. During the post walk discussion, Bettina commented it was the first time she was in the Cerrado for a spontaneous activity and enjoyed the opportunity to pay attention to other details. She added it was interesting to visit an area without knowing the plants' names, so we are free to perceive the environment in a different manner. Ann commented that it is called "distract glimpse" and Bettina added it as distracted to ecological and scientific issues but attentive to something else.

Narrative 3 - Cassandra- Second walk

As Cassandra entered in the Cerrado area, she glimpses the landscape and was delighted by the view, "Cerrado has not been so green for a long time!". She took her camera from her bag and started to walk carefully, seeking for the details on the bush at

the side of the narrow firebreak. Cassandra was walking alone, apart from the big group, sometimes asked names and other curiosities for another colleague. She was observing the view, looking at the bush, touching the plant leaves, smelling the flowers and taking pictures. We arrived at a crossroad, Cassandra was the first one who said we should choose one route among four available, but she did not participated of the discussion once she went to the side of the firebreak to see a flower to take pictures. Cassandra caught sight at an open colourful flower that until then she just had found closed. She said it was wonderful the fact that when close, the flower is red and when opened, the flower is white and red, commenting about the delicacy of the flowers in the Cerrado and comparing them to lace. She would like to know if she could plant some Cerrado species in her yard, because "they are beautiful". Cassandra ate a fruit, typical from the Cerrado and then looked for other fruits. She was comparing the leaves, trunks, flowers and fruits. We were approaching a eucalyptus grove next to a building area and Cassandra was annoyed with the amount of rubbish, so she walked faster than before, talking with other participants. During a post-walk discussion, Cassandra commented we were walking and interacting in the Cerrado in spite of being in a shopping mall. This was much better and environmental educators should provide more actions like that.

Narrative 4 - David- Second walk

David started his observations before we entered in the Cerrado area. He took his camera from his bag and photographed the trees and flowers while we were talking about other issues. David was the quietest in the group, walking alone, separated from the big group and sometimes, was the first one. He was attentive to the birds and when he heard a wings beat or song, he looked at the sky instantaneously. Oftentimes during the walk, he was the only one to pay attention to the birds. We changed the route and David walked some meters ahead from the group, walking alone, smelling and touching the leaves, trunks and taking pictures. David ate some fruits typical from the Cerrado and from that moment, started to ask some questions to others about names and curiosities he had about this environment. He stepped into the woods with another participant (Fred) and stayed there for some minutes discussing the indigenous plants. Sometimes David observed the details, sometimes the landscape, sometimes looking up to the sky and sometimes to the ground. When, we entered a building area and eucalyptus grove, Elvira (Narrative 5) said she used to like eucalyptus when she was a child, then she found out they are not indigenous and very injurious in Brazil. David replied that "they are not injurious, what human being does with them is injurious". The group was walking faster in the eucalyptus grove, so did David. However, he was still observing the trees and looking up to the sky, not touching and smelling anymore, but always attentive to the landscapes. We reached another Cerrado area, not so preserved and the sun came out. David asked me why I was concerned about the weather, because he would come anyway, in spite of the rain. During the post-walk discussion, David commented that our teaching and learning are very schooling, i.e., tied to specific times and places. He said we just learn from our experience and not from the other's experience.

Narrative 5 - Elvira- Second walk

Elvira entered in the Cerrado area laughing and glad to do that walk with friends. As we passed the gate, Elvira saw a deer footprint and other participants came closer to

see. Elvira commented it was great to know that the deer circulates near to the entrance. Elvira was walking in the big group, paying attention to the bush at the side of the firebreak. At a point, Elvira stopped suddenly to see and touch a flower, she asked someone to photograph and said "it was beautiful" and would like to have the flower as a pendant necklace. We arrived at a crossroad with four available routes; Elvira gave a suggestion which the group agreed. She kept going with the big group and sometimes pointed to some aspects of the view that was different, such as a velvet leaf, very common in the Cerrado. She also called people to see other typical fruits, which were not easy to eat once they had a stiff and thick shell to crack. We approached a building area and Elvira started to take the rubbish and put them in a bag. We passed an eucalyptus grove and Elvira commented she used to enjoy this area when she was a child. She felt sorry when she found out eucalyptus are not good in Brazil once they are non indigenous. She found a fruit of eucalyptus and made a toy which she played with. During the eucalyptus grove, the group was walking faster, so did Elvira. When we reached the other Cerrado area, she observed there were non indigenous species there. The sun came out and she said it was better to walk in Cerrado in cloudy days. Elvira saw again a deer footprint (but a different one), she joked that the deer did the same route as us.

Narrative 6 - Fred- Second walk

As we entered in the Cerrado area, Fred was concentrated on the bush at the side of the narrow firebreak. He took his camera and kept photographing all the route. He was walking alone, separated from the big group and when he saw something interesting, he called the others, including Cassandra and David to appreciate. Fred was not afraid to stepped into the bush while the others kept walking in the narrow firebreak. Sometimes, he got into the woods and came back some minutes later. So, often, Fred was the last one in the group. He found two fruits typical from Cerrado. The other colleagues thanked him to bring such a sweet taste. At a point, Cassandra, David and Fred left the narrow firebreak and entered few meters into the woods. Cassandra and David asked him many questions about the Cerrado: plants' names and ecological curiosities. Fred was attentive to the animals' traces such as footprints and the holes in the grounds which indicate the presence of armadillos. We reached a eucalyptus grove and Fred was walking faster than before. Also, he was not stepping into the woods anymore, but he was still paying attention to the views. We left the eucalyptus grove to enter to an preserved area of the Cerrado which had non indigenous species. Fred's steps were slow again and he tried some unknown fruits. Elvira laughed and asked if he was not afraid. He commented he knew someone who had tried all the fruits in the Cerrado and was alive, thus he could do the same. During the post-walk discussion, Fred said it was the first time he was in the Cerrado for a spontaneous activity and appreciated the opportunity to be free observing whatever he would like to.

Analysis of the narratives

As we already pointed out, our focus were on the aesthetic responses to the mobile practice in the Cerrado. Therefore, from the six narratives we perceived and highlighted four topics:

1-) Flora and fauna variations

According to Ingold (1993, 155), "a place owes its character to the experiences it affords to those who spend time there - to the sights, sounds and indeed smells that constitute its specific ambience". The textures of leaves and trunks are very typical in the Cerrado and that is the reason why the participants walked touching the plants. As Bettina said "the beauty in the Cerrado is precisely the hairy, velvety, thick and thorny leaves". The participants desired to walk and to feel the plants at the same time. This attention to "the details and textures that are immediately to hand" also happened in Wylie ' study (2005, 238). According to Ingold (2004), walking generates a particular way of thinking, i.e., "walking, ideally, is a state in which the mind, the body, and the world are aligned, as though they were three characters finally in conversation together, three notes making a chord" (Solnit 2001, 5).

The Cerrado is not full of flowers so when we sighted one, we were delighted, especially by the diversity of colours. Cassandra and Elvira demonstrated how sublime a flower is when Cassandra saw the different colours between the flower bud and after it was open and then Elvira when she wanted a pendant necklace. Lefebvre (2004) and Widlok (2008) assert the forest moves in innumerable ways with the polyrhythms of trees, flowers, birds and insects. Those movements are "only slow in relation to our time, to our body, the measure of rhythms" (Lefebvre 2004, 20).

As we walk we can see the presence of the animals once we encounter them or their traces. Despite seeing insects are common, Ann and Bettina were for considerable minutes watching bees and ants that aroused their curiosity. In the second walk, David heard many birds along the route while Fred and Elvira saw footprints and other signals. It is hard to see mammals so we seek for their traces just to feel their presence. This justifies the "unexpected" feeling cited by Bettina when she saw an armadillo and a lizard crossing the firebreak. The animals are in movement as well, so human bodies are just one of the complex elements when considering the mobile sense of place (Edensor, 2010). The animals were "walking with us", not intentionally or side by side, but it is important to consider the walking beyond human social activity, i.e., social relations that surpass the division "between humans and animals, and between the pacing of two feet and of four" (Ingold & Vergunst, 2008, 12).

2-) Different kind of vegetations

Ingold (1993) claims the experience in the landscape is a journey made through the body movement and the gradually changing view along this route. Using Wylie's terms (2005), there were *different levels* among those kind of vegetations- levels of light, colour, texture, sound, morphology. However as Merleau Ponty (1962) argues, they are not objects to be perceived, rather "a level is neither a content grasped in a perception nor a form imposed on an amorphous matter of sensation; it is that *with which* or according to which we perceive" (Lingis 1998, 27).

During the two walks, we passed through different kind of Cerrado (open to closed savannah and totally preserved to partly preserved) and grown eucalyptus wood for paper manufacturing. The eucalyptus grove is already known as non indigenous by the participants who also knew the deterioration for environment caused by this type of

plantation. Apart from that, eucalyptus grove is a monoculture, so there is less biodiversity than Cerrado area. All the participants walked faster through that area in the two walks. However, David made an important observation when he said "they are not injurious, what human being does with them is injurious" while Elvira made a toy from a piece of eucalyptus tree that reminded her childhood. Anyway, the interaction between the participants and the vegetation were totally different. David and Fred were the only participants who still observed the vegetation but none of them touched the trees. The affective response or the spatial belonging were also identified by walking rhythm of the participants once the speed and pace are shaped by a mobile sense of place (Edensor, 2010). Ingold (1993) stresses the time and landscape as essential points of experience. He uses the term "dwelling perspective" to argue the landscape is a testimony of predecessors and past generations who lived and worked there, leaving something of themselves. By adopting this perspective, Ingold (1993, 152) is "privileging the understandings that people derive from their lived, everyday involvement in the world". Our argument here is that the participants dwell in the Cerrado, thus we identified a deep identity when moving in this landscape, what not happened in eucalyptus area. Following the same argument, Myers (2011) identified the senses of belonging are produced through identity-making practices that are a part of everyday experiences.

In the first walk, we entered a closed savannah and not just our body changed, but also our attention and silence. We were forced to reduce the speed, divert the trees, touch the branches and spontaneously were quieter and more immersed in the vegetation. Ingold (2000) asserts the exercises, the position of your physical body and their different muscular entailments are directly incorporated into our bodily experience.

Thus, the way we choose to move our body across that closed vegetation is the response to our immersion in it and how we positioned our body is connected to our perception once " walking is not just what a body *does*; it is what a body *is*" (Ingold & Vergunst, 2008, 2).

This did not happen in the second walk, however we reached a partly preserved area where existed non indigenous species in the Cerrado. As we arrived, Elvira was frustrated about this fact. This is a key point for her and others who know the ecological features of Cerrado because there has been deterioration by invasive plants. Following Ingold (1993, 152), the Cerrado "tells - or rather is - a story", constructed by lives and time of other humans and no-humans. The author adds that the boundaries in the landscape are made by human or non-human who experience and recognize the space.

3-) Season and weather

Edensor (2010) argues temporality aspects provide an important constituent of the walking rhythm. According to him, apart from space and place, particular junctures such as weather and season are part of walking experience as we identified in this study. Cooper (2006) also discusses how season and weather, as mobile features, influences the perception and the embodiment in gardens.

Being hot climate vegetation, savannas are known for its drier climate vegetation. The sun and the heat are important factors to consider when we are in activity in the Cerrado. This factor was not much talked about, because the two walks were scheduled purposely at 8am. Both days were overcast and the sun just came out at 10am, when two participants (one on each walk) noticed and commented about that, Bettina and Elvira. Bettina, in the first walk, requested to stop in a shadow tree. Although, that means she was tired and hot, the big tree we rested can be seen as an

opportunity or place and space to refresh. We should perceive the shades, fruits and trunks as invitations (Widlök, 2008) to stop and share our coexistence with the trees. Apart from that, it demonstrated we perceive the nature with our entire body *synaesthetically* (Merleau-Ponty, 1962).

Still focusing on weather, before the two walks, I was concerned with a forthcoming rain which would have changed my plains. The way David asked me why I was so anxious about that was instigating, once this would be mishap for me. According to Vergunst (2008) the mishaps of walking are unplanned and unwanted and are linked with positive or negative emotions. In my view, the aesthetic responses would diverge in a raining day and we suggest another study to investigate or compare as Vergunst (2008) claims, the contrasts in movement are experienced relationally.

While we were moving during the second walk, we encountered and tasted two typical fruits of the Cerrado. For those who were gathered there, tasting those flavours, was a particular experience of the place that would not happen if it was not the right season for these fruits. Pink (2008, 2009) states the importance of sensory knowledge to the researcher in ethnography techniques which includes food practices produced through the sharing of tastes. Here we extend this knowledge to the possibility provided by this experience to engage body embodied in Cerrado. In a sense, then, the fruits are within the movement of life cycle and we are also incorporated in this mobile and dynamic world as *dwellers* (Ingold, 2000, 2011). As already stated, all the materiality in the Cerrado are in movement, changing, doing, being alive, thus, to walk is "to make one's way through a world –in-formation, in a movement that is both rhythmically resonant with the movements of others around us – whose journeys we share or whose paths we cross – and open-ended" (Ingold & Vergunst, 2008, 2).

4-) The glimpse extension

The Cerrado is sensible through the landscape or through the details. Our walks were during the wet weather, which influences the colour of the view. As Ann and Cassandra entered the area, the first comment was about the impact of the view: "Cerrado has not been so green for a long time!". When participants saw the horizon, the image was spaced vegetation with twisted trees but as we started to move in the Cerrado, we are able to discover the details such as texture of leaves and trunks, the sounds, the smells, the insects, traces of other animals (footprints and even the encounter with some mammals).

These scenarios are complementary and show the place is not stable and there is a pulsing and vibrant life happening in this space-time. According to Edensor (2010, 8):

"rhythm is produced by the active body as well as its interaction with particular affordances of nature. These internal and performative somatic rhythms are interwoven with the sights, sounds and smells encountered, the animals, plants, rocks, colours, light effects, water, landforms, the composite of innumerable elements that catch the attention, near and at a distance, as the walk proceeds."

Oftentimes, the participants were walking and observed something at a distance, so they approached to see the details, for example, when a bromeliad caught Ann's attention. Some experiences were not so positive, such as Bettina discovering the lake was dry. Even when the experience is not so astonishing, the mobile characteristic between the near and the distant is an important aesthetic attachment. For Wylie (2005), the distinction between details that you are able to touch and the endless view configure a particular - (and I would add) spectacular - fashion.

During the post-walk discussion, Bettina (in the first walk) and Fred (in the second one) appreciated to walk without guides or tasks as traditional activities. Bettina commented more than once how good was to perceive the details as she and Ann

observed the bees and ants behaviours for a while, touched the tree branches and listened to the birds. This is in consonance with the education of attention (Ingold, 2001), which refutes classical cognitive science and enfolds a more phenomenological and ecological perspective, leading to a corporeal and visceral learning instead of transmission of accumulated stock of representations. Following this statement, David added during the post-walk discussion that we learn from our experience and not other's experiences. This is pivotal for aesthetic experience of nature, we are not able to perceive aesthetically from representations (videos, books, photos, etc) or technology developed to substitute our corporeal being. Thus, the corporeal turn should be discussed and considered emphatically within the environmental education field.

Final thoughts

The Cerrado is neither something to be seen nor to be smelled, tasted etc. Rather we perceive the Cerrado *with* it and *in* it, i.e., there are materiality and sensibilities in this space. For Wylie (2005), this is a post-phenomenological understanding and in this perspective, landscape might be described as a space "*with which* we act and sense" (Wylie 2005, 245). Indeed, the Cerrado is not a fixed sight or passive and unchanging form of vegetation. Cerrado moves, has movement, is made by movement and we move along with it. This means that in *dwelling in the world*, instead of perceiving it, we perceive *in* and *with* it (Ingold, 2011).

The walking body in the nature interprets space and place, providing an affective and creative response and, certainly, reengagement and embedding of people with more than human world. Thus the aesthetic experience of the Cerrado happens through the mobile senses and here lies the recognition that movement goes beyond to get from one place to another, it is the movement of everything that exists, alive and not alive.

Perceiving the movement of the world through our walking body is itself a form of attachment to the nature. In addition, the Cerrado might be understood as a *slow place phenomenologically* (Pink, 2008), thus, the walking body should be incorporated in environmental education practice as an attentive to be in consonance to the *slow pedagogy* (Payne & Wattchow, 2009). Since this becomes an intentionally slow experience, it can be characterized as a reflexive and self-awareness process and appropriation of the Cerrado.

Mobile investigation is a promising approach that deserves to be explored within the environmental education field, especially in investigations covering feelings, emotions and aesthetic experience of nature. Instead of being a dialogical and verbal action, this activity is embodied and multisensorial experience which involves multi-dimensions of corporality and connections with the materialities of the more than human world. In emerging nonrepresentational theory (Thrift, 2008), the challenge was how to represent these ecophenomenological data (Payne 2013) without lapsing into traps of traditional social science which are sedentary and rational forms of language. By walking, eating and sharing the same sounds views, rhythms we were attuned to Cerrado, so what are the possibilities to organize and represent those feelings and affection? This discussion in mobile investigations and environmental education research are pivotal once these studies deal with emotion, aesthetic and ethical issues.

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SEÇÃO 7- REFLEXÕES FINAIS

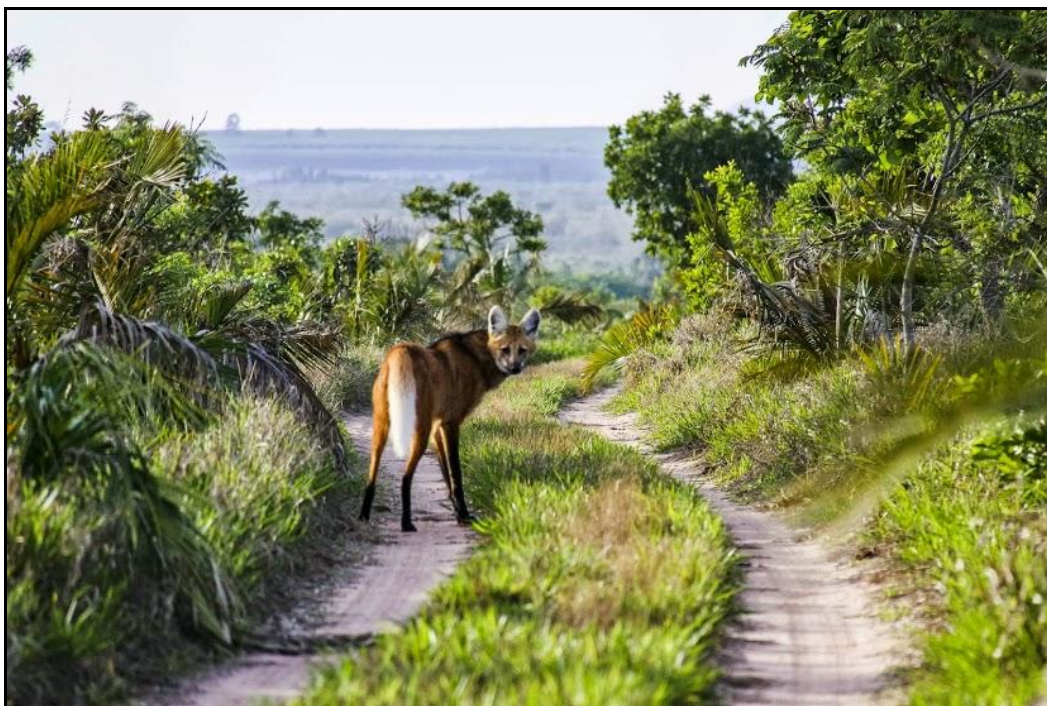


Figura 01: Cerrado na Estação Ecológica de Itirapina, SP. Foto de Reginaldo Sadao Matsumoto/2011

Já vi tucanos passando. Passar voando, é lindo! O cheiro do Cerrado é muito peculiar.

Eu gosto muito do sol. No Cerrado, a gente tem uma visão ampla. O sol bate nas nossas costas.

E o céu era uma coisa impressionante. Uma outra memória que eu tenho muito forte é do céu do Cerrado em Brasília no planalto. Foi uma coisa fantástica! O pôr do sol chegava a ser verde no céu!

Eu acho que qualquer vida, ela merece ser preservada. Eles estavam aqui antes do ser humano ou mesmo antes de ser habitada a região. Acho que a vida em si. Só o fato de ser vivo, tem o direito a ter seu espaço.

Porque ele existe, simplesmente [risos]. Porque ele existe e está ameaçado, né? Porque muita gente já derrubou um monte e já está bom. O que tem poderia se manter.

É importante por isso também: porque está acabando, pelas espécies, por todas as formas de vida.

Vamos defender, porque, sei lá, como alguém que defende sua casa ou defende a vida de uma pessoa. Porque ele está lá, ele merece.¹³

¹³ Trechos das entrevistas das/os participantes concedidas à pesquisadora

REFLEXÕES FINAIS

A maneira como organizamos a estrutura dessa tese recapitula a trajetória da pesquisa. Quando delineamos o tópico a ser estudado e a questão de pesquisa, definimos um primeiro referencial teórico-metodológico para essa investigação. A fenomenologia trata de estudar a natureza da experiência e, nessa tese, objetivamos estudar a natureza da experiência estética no Cerrado. Concordamos, então, que o referencial deveria ser interpretativo, pautado na fenomenologia-hermenêutica. A leitura de autores clássicos, como Merleau-Ponty e Gadamer, foram fundamentais para compreender esse tipo de metodologia, porém não se fizeram suficientes uma vez que há um movimento contemporâneo concebido como virada corporal que vem questionando as tradicionais teorias cognitivas e as dicotomias das dualidades modernas (natureza/ cultura, corpo/mente, humano/não humano, etc). Logo, o movimento entre autores clássicos e atuais se fez presente nos artigos apresentados nessa tese como resultado de um deslocamento temporal da pesquisadora que foi conhecendo e se aprofundando nesse campo teórico ao longo dos quatro anos.

Como apontamos na **Introdução Geral**, Hart (2005, 2013), em uma perspectiva *pós-crítica*, recomenda a reflexão por parte das/os pesquisadoras/es em educação ambiental no sentido de buscar teorias e metodologias por considerar as já existentes insuficientes para responder aos atuais movimentos intitulados de "pós" (pós-modernismo, pós-humanismo, pós-fenomenologia, pós-estruturalismo, etc.). Nessa mesma linha, Steil e Carvalho (2014) nomeiam de *epistemologias ecológicas*, as contribuições de diferentes campos científicos, apoiados na filosofia, antropologia, sociologia que contribuem para construir as pesquisas e práticas pedagógicas - nomeadas frequentemente como educação ambiental - que prezam pela horizontalidade nas relações entre humanos e não humanos coerente com o movimento da virada corporal. Baseadas no conceito de *epistemologias ecológicas* e na proposta de James (2006) de análise por camadas da realidade (*layers of reality*), na qual diferentes linhas de autoras/es devem ser abordados de acordo com o fenômeno estudado, aplicamos teorias e metodologias que tem em comum o questionamento do método positivista, mas

que não podem ser caracterizadas ou unificadas em uma mesma "categoria" metodológica.

Segundo, portanto, os referenciais teóricos que adotamos nesta investigação, o termo "estética" não se refere a uma mente em um corpo que têm um ponto de vista sobre a estética. Nossa concepção é de um engajamento ativo e exploratório do corpo no mundo. Logo, o primeiro artigo busca fazer essa consideração: a concepção de estética na qual nos pautamos e a escolha desse referencial para responder à questão de pesquisa. Como mencionado, ao longo dessa trajetória, nos deparamos com autoras/es contemporâneas/os que vêm produzindo novas técnicas de coleta de dados dentro dessa perspectiva, como por exemplo, Phillip Payne, Sarah Pink e Tim Ingold. No primeiro artigo da tese, essa/es autora/es são apontados, assim como outros questionamentos atuais sobre a virada linguística, central na obra de Gadamer. Nesse artigo, concluímos como desafiador, mas fundamental, buscar por metodologias inovadoras que se adéquem ao contexto que escolhemos investigar e que, também, considerem a experiência vivida em uma perspectiva ecocêntrica.

O segundo artigo traz os conceitos de Gadamer com mais profundidade, assim como a teoria freiriana. A ideia de aproximá-los surgiu de uma leitura intensa dos dois autores, ao acreditarmos que a interpretação acontece no diálogo e isso é uma possibilidade de pesquisa e prática na educação ambiental. No entanto, a contínua busca por outros autores na literatura atual, nos levou a identificar os questionamentos que são feitos à perspectiva da virada linguística, já que a linguagem, assim como outras categorias de análise, tem suas limitações, para as quais diferentes autoras/es vem propondo formas de superação. Nossa intenção no segundo artigo foi, portanto, anunciar essa limitação, não com a intenção de negar a linguagem e o diálogo enquanto dimensão importante da nossa vida e da prática educativa (em educação ambiental), mas reconhecer a presença de outros elementos, os sensoriais e corporais por exemplo, como também constitutivos da nossa experiência no mundo.

O terceiro e quarto artigos estão baseados nesse referencial gadameriano e freiriano e revelaram resultados que contribuíram muito para nossas reflexões tanto sobre a prática como a pesquisa em educação ambiental. Identificamos, também, o desafio em acessar sentimentos e emoções das/os participantes bem como representar dados que não são lineares e objetivos. Simultaneamente, estávamos em contato com

uma literatura contemporânea que buscava outras técnicas de coleta de dados que poderiam complementar o estudo e responder à nossa questão de pesquisa. O ponto-chave aqui é a comensurabilidade da pesquisa, ou seja, buscar metodologias que estejam de acordo com o tema da nossa investigação. Isso nos instigou a fazer uma nova coleta de dados pautada em um referencial teórico-metodológico, ainda interpretativo, mas com pressupostos ontológicos e epistemológicos que se distanciam em relação às/aos autoras/es clássicos. O quinto artigo já traz a perspectiva da virada corporal, na qual a mente encarnada está em conexão visceral com o mundo em um nível pré-reflexivo, ou seja, uma experiência de ser e estar no mundo que é anterior à linguagem. Dessa filosofia, também emergem as investigações móveis que consideram o movimento como pivô da nossa essência. Logo, o último artigo traz essa perspectiva de analisar a experiência estética dos seres em movimento no Cerrado com a pesquisadora também imersa na experiência estética. Aí jaz outro importante aspecto dessa metodologia: a materialidade dos seres não humanos. Quando consideramos os seres em movimento no Cerrado, não estamos nos limitando aos seres humanos, ou seja, também estamos nos referindo ao movimento dos seres não humanos: à fauna que percorre a área, aos botões florais que se abrem, aos frutos que aparecem em determinadas estações, ao sol que vai do leste ao oeste, à água que percola o solo. Disso, tiramos que perceber é perceber os movimentos e perceber em movimento. De fato, os dados emergidos na caminhada em movimento no Cerrado vêm a complementar o que identificamos no terceiro e quarto artigos.

A partir da articulação dessas diferentes fontes de dados, nos arriscamos a responder a primeira questão de pesquisa: qual a natureza das experiências estéticas no Cerrado das/os participantes do estudo que têm por característica um forte engajamento afetivo com esse ambiente? Segundo nossa análise, as naturezas das experiências estéticas estariam relacionadas à coformação/ convivência e coexistência **no/com/como** tudo que existe e vive no Cerrado, seres vivos e não vivos. As diferentes maneiras pelas quais as/os participantes perceberam que estiveram e estão transformando e se transformando em inúmeros encontros com esse ambiente pode ser visto como um convite a ser/ estar/ fazer parte e constituir a conexão visceral, o corpo engajado e a identidade dessas pessoas **no/com/como** Cerrado. No entanto, consideramos que em

outros estudos com outro público envolvido, outras naturezas da experiência estética no Cerrado poderão ser identificadas.

O estudo de autoras/es e teorias condizentes com a virada corporal ou com as *epistemologias ecológicas* (STEIL, CARVALHO, 2014) nos instigou ao longo desse estudo, nos fazendo refletir sobre a continuidade dessa investigação no campo da educação ambiental. Considerar que os outros seres vivos tenham materialidade, ou seja, uma perspectiva de ser no mundo nos parece um posicionamento horizontal em relação à existência dos não humanos. Atualmente, ao falarmos da formação de uma ética ambiental, ainda estamos colocando como central a cultura humana, não nos preocupando com a perspectiva dos não humanos, por deduzirmos que não exista agência não humana. No entanto, a teoria não representacional vem questionar o quanto acessamos, compreendemos e representamos outras formas de ser no mundo tanto humanas como não humanas. Acreditamos que essas teorias contribuem para a construção de uma ética ambiental ecocêntrica que não busca pontuar diferenças entre os humanos e não humanos. Ao optarmos por essa escolha, reconhecemos que estamos engajados com outros corpos no mundo (humanos e não humanos) não apenas dividindo o mesmo espaço, mas em um processo recíproco e horizontal de formação e autocompreensão.

A tensão entre antropocentrismo e ecocentrismo também se fez presente nos artigos apresentados. Durante a pesquisa, percebemos a necessidade de, a partir de autoras/es com uma visão mais voltada à cultura humana, buscar ou aplicar metodologias que estão no caminho de uma *ecofenomenologia* (PAYNE, 2013). Da mesma maneira, a tensão paradigmática entre modernidade e pós-modernidade permeou todo o processo de pesquisa e os artigos refletem essa busca constante de pensar em metodologias que respondessem à questão de pesquisa. Pesquisar a afetividade e a dimensão sensível da experiência humana é nos aproximar de uma perspectiva pós-moderna, logo é mais consistente aplicar metodologias que estejam inseridas nesse paradigma. A entrevista tradicional é essencialmente um método da modernidade com algumas limitações e não se adéqua às sensibilidades pós-modernas (PAYNE, 2013; PINK, 2009, ROLLEMBERG, 2013). Nosso desafio com a entrevista foi desenvolver uma possibilidade na qual o encontro entre pesquisadora e participantes fosse percebido como um momento inacabado. Logo, a aproximação entre Gadamer e Paulo Freire nos

pareceu interessante como uma alternativa por acreditarmos que interpretação da pesquisa também se constrói em uma perspectiva intersubjetiva e dialógica. Portanto, julgamos ter sido uma contribuição importante a devolutiva tanto da transcrição como da sistematização dos dados levantados durante a entrevista. Ao realizar este retorno, nosso objetivo era oportunizar momentos que transcendessem a entrevista em si. Logo, propiciamos que as/os participantes alterassem, acrescentando ou retirando aspectos identificados. Apesar de considerarmos a devolutiva da transcrição e da interpretação como uma etapa válida e comensurável com o referencial adotado, consideramos que ainda era um aporte insuficiente para responder as questões de pesquisa.

Um dos pontos que nos instigou, principalmente no quarto artigo, foi a dificuldade das/os participantes em expressarem seus sentimentos por meio das entrevistas. Da mesma forma, nós como pesquisadoras também percebemos o desafio de representar os dados analisados. Dessa maneira, persistia a busca por referenciais mais coerentes e outras leituras, que questionavam os pressupostos modernos, nos fizeram pensar em outras possibilidades. Daí adveio a metodologia aplicada no quinto artigo que trouxe novos dados, que complementaram as entrevistas e auxiliaram em responder a questão de pesquisa uma vez que as/os participantes não estavam representando ou descrevendo sua experiência. Eu estava imersa com elas/es no Cerrado, engajada, percebendo, participando e aprendendo com a mesma experiência.

Um ponto importante no delineamento dessa última coleta de dados foi o convite para as/os mesmas/os participantes que já haviam sido entrevistadas/os. Nem todas/os responderam, mas essa oscilação das/os envolvidas/os na pesquisa é compreensível. Afinal, o interesse e o tempo de disponibilidade da pesquisadora são diferentes das/os outras/os envolvidas/os, que por mais que tenham vontade de contribuir, têm outras responsabilidades. Por termos realizado a caminhada em movimento com pessoas que haviam concedido entrevista no ano anterior, temos como objetivo, em um artigo futuro, comparar as metodologias realizadas, a entrevista e a caminhada em movimento.

Ao compararmos brevemente essas diferentes metodologias, consideramos que há possibilidades pertinentes em ambos os caminhos. Na nossa leitura, a principal diferença entre as duas está na “representação” da experiência, sendo que nas entrevistas as/os participantes descreveram suas memórias, histórias e sentimentos com/sobre o Cerrado. Na caminhada em movimento, a perspectiva da/o pesquisador/a

estar, também, com o corpo engajado na experiência estética possibilitou se aproximar das respostas afetivas sem a “representação” da linguagem. Ao invés do foco ser na ação dialógica e verbal, esta técnica oportuniza uma atividade corporal e o foco é a experiência multisensorial que envolve múltiplas dimensões da corporalidade e conexões com as materialidades do mundo mais do que humano. Logo, percebemos que as coletas de dados se complementaram e essa comparação é uma sugestão de estudos futuros.

Concluimos, também, que a *caminhada em movimento* (INGOLD; VERGUNST 2008) e a *etnografia sensorial* (PINK, 2009) não se reduzem a métodos de pesquisa, mas podem ser aplicadas como práticas corporais nas atividades de educação ambiental com o objetivo de motivar a percepção do nosso corpo entrelaçado com o ambiente, uma percepção mais cuidadosa, sensível, maravilhada e curiosa. A perspectiva educativa de Ingold (2010) traz a noção da *educação da atenção* em oposição à *transmissão e representações, autor que em publicação mais recente* (INGOLD, 2014) questiona a dualidade entre conhecer e ser. Em ambos os trabalhos, o autor defende que o conhecimento não consiste em proposições sobre o mundo, mas é construído a partir do engajamento sensorial com o ambiente, ou seja, conhecer é participar com as pessoas e as coisas em suas vivências práticas. Nós aprendemos a partir das nossas experiências e não das experiências dos outros. Temos incorporado essas práticas sensoriais e móveis em cursos e disciplinas. A foto a seguir (Figura 1) ilustra uma caminhada sem sapatos e de olhos vendados no Cerrado. O exercício de se desfazer de acessórios que utilizamos no dia a dia é um fator em potencial para trabalhar com a sensibilidade nas atividades de educação ambiental.



Figura 02: Dinâmica sensorial realizada no Cerrado (São Carlos-SP) durante o Curso para monitoras/es da Trilha da Natureza¹⁴ oferecido em novembro de 2014. Foto de Pavel Dodonov.

Ingold (2000) e Vergunst (2011) questionam o uso de "tecnologias" na percepção do ambiente, afirmando que a mediação por meio de câmeras fotográficas, GPS - *Global Positioning System* (Sistema de Posicionamento Global) e, até nossos sapatos, nos afastam de uma conexão integrada com a natureza. A percepção de temperatura, os diferentes cheiros ou atenção aos detalhes são mediadas pelo uso dos aparatos tecnológicos. Logo, indicamos que algumas atividades podem ser elaboradas nessa direção de se desapegar, mesmo que por alguns minutos, das "tecnologias" construídas para nosso conforto e que, ao mesmo tempo, nos desconecta de uma interação corporal com outros elementos do ambiente. Durante o decorrer da pesquisa, nos instigou a possibilidade da influência da mediação tecnológica na experiência estética da natureza. A partir disso, emergiu uma questão que poderá ser explorada em

¹⁴ Trilha da Natureza é projeto de extensão da UFSCar apoiado pela Proex-UFSCar que objetiva desenvolver atividades que motivem moradoras/es da região a vivenciar o Cerrado da UFSCar.

um trabalho posterior: qual a relação entre a experiência estética da natureza e o uso de aparatos tecnológicos?

No que se refere à segunda questão de pesquisa, os resultados do terceiro artigo mostram a importância de pequenas áreas naturais ou áreas verdes urbanas serem acessíveis para que a experiência estética da natureza aconteça fora dos espaços formais de educação e a convivência entre gerações (pais, mães, avôs, avós, etc) que ocorrem na espontaneidade do cotidiano. Aliás, esse é um ponto instigante da pesquisa já que no terceiro artigo identificamos que poucos participantes citaram a escola como elemento importante na formação dos valores estéticos e éticos, sendo que as memórias de infância e o "brincar" na/junto/como natureza parecem ter um papel essencial na constituição de um vínculo forte com o Cerrado. Esse assunto é recapitulado no quinto artigo, quando um dos participantes comenta sobre a escolarização do nosso ensino e a importância de valorizarmos outros momentos e espaços não formais de aprendizagem. Logo, entendemos que a incorporação desses elementos no currículo oficial das instituições escolares e não escolares são aspectos que merecem ser amplamente discutidos junto às pessoas e instituições dedicadas à educação e em especial às/aos educadoras/es ambientais. O caráter temporal foi identificado como relevante para a qualidade da experiência estética. Todas as pessoas que participaram da pesquisa tinham uma história de vivência permanente com a natureza e, particularmente, com o Cerrado. Geralmente, as atividades de educação ambiental escolares, como visitas a áreas naturais ou outro espaço educador, são pontuais, com duração de 2 a 3 horas em média. Pensando nesse aspecto como essencial para nossas atividades educativas, devemos, junto às nossas instituições, fomentar uma educação ambiental que caminhe no sentido de propiciar momentos de imersão na natureza. A Figura 2 ilustra uma foto de uma noite de acampamento no Cerrado da UFSCar que propiciou 2 dias de atividades em imersão no Cerrado, com contato íntimo com a natureza.



Figura 03: Acampamento no Cerrado (São Carlos-SP) durante o Curso para monitoras/es da Trilha da Natureza¹⁵ oferecido em novembro de 2014. Foto de Pavel Dodonov.

A temporalidade e a espacialidade condicionam a experiência estética, portanto influenciam a formação de valores estéticos e éticos da natureza. Esse tópico não foi aprofundado no presente estudo, mas indicamos que futuros estudos no campo da educação ambiental possam abordar a relação desses conceitos na experiência estética no Cerrado e/ou na natureza. Sugerimos, também, que esse tópico esteja associado com a noção de *paisagens da compreensão* (CARVALHO; GRÜN; AVANZI, 2009) que compartilha da mesma perspectiva de Ingold (2000) de engajamento no mundo, isto é, a paisagem não é concebida como um cenário onde existimos, mas é condição para a trama da nossa existência que é nosso corpo entrelaçado com o humano e não humano. Para Ingold (2000), nós somos habitantes *no* mundo, o que significa que nós não agimos sobre o mundo ou fazemos coisas nele e para ele. Para o autor, nós nos movemos com o mundo, pois nossas ações não o transformam, mas são partes integradas ao mundo que

¹⁵ Trilha da Natureza é um curso de extensão da UFSCar apoiado pela Proex-UFSCar que objetiva desenvolver atividades que motivem moradoras/es da região a vivenciar o Cerrado da UFSCar.

está por si só se transformando. Ou seja, essa transformação, o tempo e o espaço compõem a malha da nossa experiência no mundo.

O último ponto que queremos ressaltar é a articulação entre os valores estéticos e éticos, já que em consonância com Hermann (2008), esta não é uma relação direta, ou seja, vivenciar esteticamente em plenitude um local não se reflete, necessariamente, em um posicionamento ético e político, tanto individual como coletivo. Historicamente, a ética pertence ao campo da razão, enquanto a estética ao campo da emoção e sentimentos, sendo que, ontologicamente e epistemologicamente, na sociedade moderna, são percebidos como esferas separadas da vida humana. Hermann (2008) defende, então, uma estetização da ética que é irrestritamente criadora e motivadora da liberdade e autoimaginação. As pessoas que participaram dessa pesquisa tinham essa formação (entre estética e ética) articulada, engajamento e interesse nas questões referentes ao Cerrado. Identificamos, nesse estudo, que esse posicionamento ético das/os participantes pode ter forte relação com as experiências estéticas no Cerrado e a partir de diálogos junto aos familiares, amigos/os, colegas de trabalho, leituras e estudos de texto. Os sujeitos da experiência realizaram uma *autoconstrução do sujeito moral* (HERMANN, 2008), o que segundo a autora é uma abertura da ética para suas relações com a estética. Eis um dos maiores desafios para educação ambiental: fomentar que nossas práticas educativas motivem, intencionalmente, para além dos conhecimentos experiência estética da natureza, a formação individual e coletiva de uma ética ambiental ecocêntrica.

No entanto, isso pode delinear-se de maneira diferente em outros grupos de pessoas em outros contextos. Ou seja, é possível que algumas pessoas tenham uma formação ética e uma curiosidade estética a partir dos conhecimentos (tradicionais e científicos) de um ambiente ou de uma problemática ambiental. Aliás, seria interessante pensar que os conhecimentos poderiam ser um ponto de origem para a apreciação estética daquelas/es que têm medo de animais ou de estar na natureza, como identificado no quarto artigo. É possível, também, que o histórico do vínculo afetivo e de sensibilidade estética se inicie em um movimento político e coletivo de questionar o sistema hegemônico e reconhece no movimento ambientalista as mesmas preocupações de se opor à uma política que privilegia o desenvolvimento econômico em detrimento do socioambiental. Nesse sentido, a articulação entre essas dimensões - conceituais,

políticas, éticas e estéticas - persistem como questões de pesquisa que demandam investigação e reflexão sobre novas perspectivas metodológicas que ampliam a pesquisa em educação ambiental.

Recapitulando o que acreditamos por educação ambiental crítica na **Introdução Geral** desta tese, defendemos que articular intencionalmente essas dimensões do ensino-aprendizado é estar em uma perspectiva crítica, ou seja, uma postura reflexiva e transformadora. Além disso, como também argumentado na **Introdução Geral**, também estamos nos colocando do lado dos oprimidos (como diria Paulo Freire) ou do lado das vítimas (recorrendo a Enrique Dussel) que, nesse contexto de pesquisa, vai para além dos seres humanos, trazendo a preocupação em relação ao respeito pelas perspectivas dos outros seres, os vivos e não vivos. Ainda sobre isso, nosso argumento é de que essa nova ontologia (indissociação entre mente, corpo e mundo) tem alto potencial transformador e de ruptura de paradigmas arraigados em sociedades antropocêntricas.

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ANEXOS

ANEXO A

Normas submissão para o periódico *The Journal of environmental education*

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Empirical Research Articles: A research article can be based on qualitative, quantitative, or mixed methods. The format for presenting and discussing the research results should be appropriate to the methodology but the following must also be included: a 100 word abstract, 3-6 key word descriptors, some form of problem statement, review of relevant literature, description of methodology and methods, and implications for research, policy and/or practice.

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- <http://mcv3help.manuscriptcentral.com/auplmkodwert/MC3Help.htm>

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ANEXO B

Normas de submissão para o periódico *Canadian Journal of environmental education*

Author Guidelines

Contributions may take the form of research articles, reports, evaluations, case studies, critical essays, practitioner reflections, and reviews. Theoretical essays or research reports should include a description of the practical applications of the ideas raised or tested, while reports of teaching practice or techniques should contain an explanation of the theoretical foundation underlying the practice or technique in question.

Manuscripts will be reviewed by at least two advisory editors or invited consultants with relevant expertise. Contributors may wish to supply names and addresses of potential reviewers. The selection of articles for inclusion in the journal will be based on these reviews. Submissions are accepted until November 1 of each year.

Submissions

Manuscripts should be clearly written and well-organized and will be edited for clarity and brevity. Electronic submissions are requested. Submissions can be made by creating an author account on this Online Journal System.

All submissions should include a brief abstract to a maximum of 125 words and a minimum of five key words for referencing of papers. The name and affiliation of the author(s) should appear on a separate title page to ensure anonymity during the reviewing process. Authors should retain an exact copy of this manuscript in order to respond to requests for clarification of specific pages, paragraphs, or lines. Microsoft Word is the preferred format.

Manuscripts are accepted for publication on the understanding that they have been submitted only to the Canadian Journal of Environmental Education and that copyright of the published articles will be owned by the journal. Authors are responsible for the factual accuracy of their papers and for obtaining permission to reproduce text or illustrations from other publications.

The Canadian Journal of Environmental Education will not normally publish feature articles by the same author in consecutive issues. Exceptions may be considered in cases of contiguous work. This limitation does not apply to short analyses, response pieces, or book reviews.

Papers should not exceed a maximum of 7000 words. To check manuscript length we conduct a computerized word-count that includes the abstract, endnotes, references, and bibliographical sketch(es) of author(s). In exceptional circumstances a slightly longer paper may be submitted, but this should be negotiated, in advance, with the editors. It is the author(s)' responsibility to ensure that his/her paper meets these guidelines. Long papers may be returned to authors at any stage of the review or production processes. To avoid disappointment, please take care.

Style

Publication Manual of the American Psychological Association, 6th edition (APA), must be used as a style reference. Explanatory notes should be avoided whenever possible. Essential notes should be identified with consecutive superscripts and listed in a section entitled “Notes” at the end of the text. Papers not formatted in APA style may be returned to authors at any stage of the review or production processes.

Citations are normally presented in a list of references. Please check that in text references match your list of references, double-checking that dates match. Please refer to the following examples:

In text:

(Greenall Gough, 1993)

(Kurth-Schai, 1992; Merchant, 1980; Warren & Cheney, 1991)

References:

Egan, K. (1989). Individual development. In K. Egan, A. Luke, & S. de Castell (Eds.), *Literacy, society, and schooling* (pp. 243-255). New York: Cambridge University Press.

Greenall Gough, A. (1993). *Founders in environmental education*. Geelong: Deakin University Press.

Warren, K. J. & Cheney, J. (1991). Ecological feminism and ecosystemecology. *Hypatia*, 6(1), 179-197.

Canadian spellings will normally be used. However, alternative approaches to both form and spelling will be considered when integral to the “voice” presented.

Illustrations, Figures, and Tables

Only those illustrations, figures, and tables essential to reader understanding should be included. Illustrations, figures, and tables should be provided in finished form suitable for reproduction and be no larger than 18 x 11.75 cm or 7 x 4.25 inches. Figure legends should be typed together on a separate page.

Correspondence

All correspondence should be addressed to:

Canadian Journal of Environmental Education, Faculty of Education Lakehead University, 955 Oliver Road, Thunder Bay, Ontario CANADA P7B 5E1 or to cjee@lakeheadu.ca.

Book Review Correspondence

Canadian Journal of Environmental Education, Book Review Editors

All correspondence should be addressed via email to: cjeebook@lakeheadu.ca.

Submission Preparation Checklist

As part of the submission process, authors are required to check off their submission's compliance with all of the following items, and submissions may be returned to authors that do not adhere to these guidelines.

1. The submission has not been previously published, nor is it before another journal for consideration (or an explanation has been provided in Comments to the Editor).

2. The submission file is in Microsoft Word readable format
3. Referencing follows the Publication Manual of the American Psychological Association (APA) style, 6th edition.
4. The text adheres to the stylistic and bibliographic requirements outlined in the [Author Guidelines](#), which is found in About the Journal.
5. The text, if submitted to a peer-reviewed section (e.g., Articles), has had the authors' names removed. If an author is cited, "Author" and year are used in the bibliography and footnotes, instead of author's name, paper title, etc. The author's name has also been removed from the document's Properties, which in Microsoft Word is found in the File menu.
6. Submission does not include embedded footnotes. Endnotes are kept to a minimum, and are indicated in text by superscript, and not embedded in the document, but written as normal text at the end of the manuscript. Acronyms are used sparingly, and are clearly identified the first time used.
7. Manuscript does not exceed 7000 words, unless previously approved by an editor.

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ANEXO C

Normas para submissão de trabalho completo ao *VII Encontro de Pesquisa em Educação Ambiental*

Diretrizes para Autores

A revista publica artigos originais resultantes de **pesquisa empírica** ou **estudo teórico** no campo da Educação Ambiental de autores brasileiros e estrangeiros, nos idiomas português, espanhol, inglês ou francês. A publicação tem periodicidade semestral e iniciou-se no segundo semestre de 2006, concebida no bojo dos eventos “Encontro de Pesquisa em Educação Ambiental” (EPEA).

AVALIAÇÃO

A submissão de artigos é analisada inicialmente pelos editores coordenadores do número que verificam a sua pertinência ao escopo da revista, caso positivo o artigo é encaminhado a dois pareceristas externos, que o avaliam de acordo com os critérios definidos pelo Conselho Editorial Científico. Em caso de não concordância de pareceres, o artigo será encaminhado a um terceiro avaliador.

DIREITOS AUTORAIS

A publicação do trabalho implica a cessão integral dos direitos autorais à **Revista Pesquisa em Educação Ambiental**. Conceitos, idéias e afirmações contidos nos artigos são de responsabilidade dos autores, não coincidindo, necessariamente, com o ponto de vista dos Editores ou do Conselho Editorial da revista. É permitida a submissão de até dois artigos por ano por autor(a) ou grupo de autores(as).

NORMAS DE PUBLICAÇÃO

O **texto** deve estar em formato compatível com o Word for Windows, fonte Times New Roman, corpo 12, espaço simples, sem espaço entre parágrafos; alinhamento com as margens esquerda e direita (justificado) e recuo de 1,25 cm no início de cada parágrafo. O texto deve ter até 15 páginas em formato A4 e margens superior, inferior e laterais de 3 cm. Na **primeira página** do texto deve constar o título completo do artigo no idioma em que ele foi escrito (português, espanhol, inglês ou francês) e em inglês, caso não seja este o idioma do texto; **resumo** de até **150 palavras** em português e inglês (**abstract**), e três **palavras-chave/keywords** (português e inglês). Os(s) nome(s) do(s) autor(es) **não** deve(m) constar no texto. No caso de pesquisas empíricas, o resumo deve apresentar brevemente e de forma clara os objetivos, a metodologia e os resultados mais importantes. O resumo não precisa incluir referências bibliográficas. As palavras-chave e *keywords* devem refletir da melhor maneira possível a temática do estudo. **Figuras, fotos, tabelas e quadros**, devem estar no texto e também ser enviados separadamente, em arquivos anexos com a identificação dos mesmos (Exs: figura 01, tabela 02, ou quadro 01). Uma **folha de rosto** deve ser enviada separadamente, como documento suplementar, contendo: i) título do trabalho no idioma em que ele foi escrito; ii) afiliação completa de todos os autores (nome completo, formação, cargo e/ou função, endereço eletrônico e vínculo institucional [instituição, unidade, departamento, local de origem]). Um **autor para correspondência** deve ser indicado na folha de rosto e incluir **endereço completo e telefone** para contato. Em todos os arquivos eletrônicos deve-se apagar as informações que possibilitem identificar o(s) autor(es) do referido artigo (Obs.: No programa Word for Windows acessar o comando propriedades/resumo e apagar as informações).

As citações no texto e as referências devem seguir rigorosamente a última versão das normas da ABNT. As normas escolhidas devem ser uniformes ao longo de todo o texto.

Nos casos indicados abaixo, em que a ABNT oferece opções, o trabalho deverá adotar as orientações que se seguem:

1. As citações devem ser indicadas no texto pelo sistema de chamada autor-data.
Exemplo: Segundo Sobrenome (2012).
2. As referências devem aparecer em “Referências” e só devem apresentar aquelas que foram citadas no transcorrer do texto.
3. O recurso tipográfico itálico deve ser utilizado para destacar o elemento título das obras, de acordo com a norma.
4. As notas devem ser colocadas no rodapé da página.

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Como parte do processo de submissão, os autores são obrigados a verificar a conformidade da submissão em relação a todos os itens listados a seguir. As submissões que não estiverem de acordo com as normas serão devolvidas aos autores.

1. A contribuição é original e inédita, e não está sendo avaliada para publicação por outra revista; caso contrário, deve-se justificar em "Comentários ao Editor".
2. Os arquivos para submissão estão em formato Microsoft Word, OpenOffice ou RTF (desde que não ultrapassem 2MB)
3. URLs para as referências foram informadas quando necessário.
4. O texto está em espaço simples; usa uma fonte de 12-pontos; emprega itálico em vez de sublinhado (exceto em endereços URL); as figuras e tabelas estão inseridas no texto, não no final do documento, como anexos.
5. O texto segue os padrões de estilo e requisitos bibliográficos descritos em [Diretrizes para Autores](#), na seção Sobre a Revista.
6. A identificação de autoria do trabalho foi removida do arquivo e da opção Propriedades no Word, garantindo desta forma o critério de sigilo da revista, caso submetido para avaliação por pares (ex.: artigos), conforme instruções disponíveis em [Assegurando a Avaliação Cega por Pares](#).

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ANEXO D

Normas para submissão ao periódico *Environmental Education Research*

This journal uses ScholarOne Manuscripts (previously Manuscript Central) to peer review manuscript submissions. Please read the guide for ScholarOne authors before making a submission. Complete guidelines for preparing and submitting your manuscript to this journal are provided below.

Use these instructions if you are preparing a manuscript to submit to *Environmental Education Research*. To explore our journals portfolio, visit <http://www.tandfonline.com/>, and for more author resources, visit our Author Services website.

Environmental Education Research considers all manuscripts on the strict condition that

- the manuscript is your own original work, and does not duplicate any other previously published work, including your own previously published work.
- the manuscript has been submitted only to *Environmental Education Research*; it is not under consideration or peer review or accepted for publication or in press or published elsewhere.
- the manuscript contains nothing that is abusive, defamatory, libellous, obscene, fraudulent, or illegal.

Please note that *Environmental Education Research* uses CrossCheck™ software to screen manuscripts for unoriginal material. By submitting your manuscript to *Environmental Education Research* you are agreeing to any necessary originality checks your manuscript may have to undergo during the peer-review and production processes.

Any author who fails to adhere to the above conditions will be charged with costs which *Environmental Education Research* incurs for their manuscript at the discretion of *Environmental Education Research*'s Editors and Taylor & Francis, and their manuscript will be rejected.

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1. General guidelines

- Manuscripts are accepted in English. Any consistent spelling and punctuation styles may be used. Please use single quotation marks, except where 'a quotation is "within" a quotation'. Long quotations of 40 words or more should be indented without quotation marks.
- Manuscripts should be compiled in the following order: title page (including Acknowledgements as well as Funding and grant-awarding bodies); abstract; keywords; main text; acknowledgements; references; appendices (as appropriate); table(s) with caption(s) (on individual pages); figure caption(s) (as a list).
- Abstracts of 150 words are required for all manuscripts submitted.
- Each manuscript should have 3 to 6 keywords.
- Search engine optimization (SEO) is a means of making your article more visible to anyone who might be looking for it. Please consult our guidance here.
- Section headings should be concise.
- All authors of a manuscript should include their full names, affiliations, postal addresses, telephone numbers and email addresses on the cover page of the manuscript. One author should be identified as the corresponding author. Please give the affiliation where the research was conducted. If any of the named co-authors

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 - *For multiple agency grants:* "This work was supported by the [Funding Agency 1] under Grant [number xxxx]; [Funding Agency 2] under Grant [number xxxx]; and [Funding Agency 3] under Grant [number xxxx]."
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- Authors must adhere to SI units. Units are not italicised.
- When using a word which is or is asserted to be a proprietary term or trade mark, authors must use the symbol ® or TM.
- Authors must not embed equations or image files within their manuscript

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- Description of the Journal's reference style.
- An EndNote output style is available for this journal.
- Guide to using mathematical scripts and equations.
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- Please provide the highest quality figure format possible. Please be sure that all imported scanned material is scanned at the appropriate resolution: 1200 dpi for line art, 600 dpi for grayscale and 300 dpi for colour.
- Figures must be saved separate to text. Please do not embed figures in the manuscript file.

- Files should be saved as one of the following formats: TIFF (tagged image file format), PostScript or EPS (encapsulated PostScript), and should contain all the necessary font information and the source file of the application (e.g. CorelDraw/Mac, CorelDraw/PC).
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- Figure captions must be saved separately, as part of the file containing the complete text of the manuscript, and numbered correspondingly.
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Manuscripts may be submitted in any standard editable format, including Word and EndNote. These files will be automatically converted into a PDF file for the review process. LaTeX files should be converted to PDF prior to submission because ScholarOne Manuscripts is not able to convert LaTeX files into PDFs directly. All LaTeX source files should be uploaded alongside the PDF.

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Last updated 02/04/2014

ANEXO E

Normas para submissão da *Qualitative Inquiry*

MANUSCRIPTS should be prepared in accordance with the 6th edition of the *Publication Manual of the American Psychological Association*. Double-space all manuscripts, including references, notes, abstracts, quotations, and tables on 8 1/2 x 11 paper. The title page should include all authors' names, affiliations, and highest professional degrees; the corresponding author's address and telephone number; and a brief biographical statement. The title page should be followed by an abstract of 100 to 150 words. Tables and references should follow APA style and be double-spaced throughout. Ordinarily, manuscripts will not exceed 30 pages (double-spaced), including tables, figures, and references. Authors of accepted manuscripts will be asked to supply camera-ready figures.

To submit the manuscript please access our online submission system at <http://mc.manuscriptcentral.com/qj>. If you have difficulties, please contact us at tdenzinjournals@gmail.com. It is important to note that you will be asked to remit a \$10 submission fee upon submission of your manuscript.

Special Issue Proposal and Submission Guidelines:

When submitting a Special Issue proposal to *Qualitative Inquiry*, you must provide in writing:

- a provisional title and abstract of 300-500 words on what the Special Issue intends to cover;
- a rationale as to why this Special Issue is needed, what contribution it aims to make, if there have been any other special issues (or edited books) on this topic, etc.;
- evidence of your qualifications to edit this Special Issue;
- a proposed timeline to publication starting with the Call for Papers.

When submitting the completed collection of manuscripts to serve as the Special Issue, you should keep in mind the following:

- All manuscripts should have already been peer-reviewed and revised prior to submission;
- The Special Issue guest editor/s must submit his/her/their editorial introduction at this time, which shows how each article manuscript connects to the mandate of the journal, connects the special issue to the relevant literature in the field, and so forth.

Once we have received the completed Special Issue package of manuscripts, our office will conduct an internal review of each manuscript for content and clarity. Note the following:

- Reviews of Special Issues will not begin until ***all*** of the manuscripts for the special issue, including the Introduction, have been received. For this reason, please do not submit the special issue in pieces; rather, submit them all at once.
- We reserve the right to reject special issues and/or individual articles at any point in the review process. For this reason, guest editors should not communicate that submissions have been accepted at any point. ***Final Acceptance of a manuscript/special issue can only be granted by the Editor of the journal.***

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