

# Constructing 'geo'- exploring the epistemological frameworks of Steiner-Waldorf and mainstream approaches to geography

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**ABSTRACT.** This paper considers the two key principles underpinning the approach to geography teaching adopted in Steiner-Waldorf schools: the holistic representation of 'geo' and the narrative-based pedagogy used to construct such a knowledge of the world. Firstly, consideration is given to the social-theoretical and conceptual frameworks informing the mainstream geography curriculum. This is then compared with Steiner education's child-centred approach to geography teaching, particularly the role given to imagination. While focused on geography this paper also explores wider issues surrounding curriculum knowledge and approaches to teaching and learning based on an anthroposophical understanding of the child, the world and evolution. It is argued that both imaginative and more conceptually-framed or rational approaches to knowledge and learning need, to some extent, to be integrated for geography to engage pupils' interest and have relevance in the modern world. On the one hand, mainstream education could learn from the Waldorf emphasis on narrative, imagination and the cultivation of a sense of wonder. On the other hand, Waldorf education could benefit from a more rigorous conceptual and critical approach to knowledge as adopted by the mainstream.<sup>1</sup> In this sense there is scope for collaboration between the two educational discourses.

*Key words:* geography, curriculum, pedagogy, knowledge, Mainstream, Steiner Waldorf Education

**ZUSAMMENFASSUNG.** Die vorliegende Arbeit erwägt zwei wichtige Prinzipien, die die Einstellung zum Geografieunterricht in Steiner-Waldorf Schulen begründen. Von zentraler Bedeutung sind die holistische Wahrnehmung von 'Geo' sowie die erzählbasierte Pädagogik, die benutzt werden, um solch ein Wissen der Welt zu gestalten. Zuerst wird der sozialtheoretische und konzeptionelle Rahmen in Erwägung gezogen, der im etablierten Geografielehrplan benutzt wird. Dieser wird sodann mit dem Ansatz zum Geografieunterricht in den Waldorfschulen verglichen, insbesondere die *Vorstellungsbildung*, die eine wichtige Rolle im Unterricht spielt. Diese Arbeit konzentriert sich auf Geografie, erforscht aber auch weitere Themen über Lehrplanwissen und Ansätze zum Unterricht und Bildung, die ein anthropologisches Verstehen des Kindes, der Welt und der Evolution voraussetzen. Es wird argumentiert, dass sowohl fantasievolle wie auch mehr konzeptionelle oder rationale Ansätze in Bezug auf Wissen und Bildung im Geografieunterricht integriert werden müssen. So werden nicht nur die Schüler im Unterricht angeregt, sondern es wird generell das bedeutende Bildungspotenzial der Geografie unterstrichen.

Einerseits kann die etablierte Pädagogik wichtige Impulse von methodischen Ansätzen der Waldorferziehung erhalten, wie z.B. ihrer Erzähltradition, der Pflege von Phantasie und der Kultivierung eines „Staunens über die Welt“. Andererseits kann die Waldorferziehung von einem konzeptionellen und kritischen Denkansatz zum Wissen profitieren. In diesem Sinne bestehen Kooperationsmöglichkeiten zwischen den zwei Erziehungsdiskursen.

*Schlüsselwörter:* Geografie, Lehrplan, etablierte Pädagogik, Waldorfpädagogik, Bildungspotenzial Geografie

1. The ideas in this paper arose from the author's PhD research that explores the Waldorf approach to teaching geography.

## Introduction

Although Rudolf Steiner highlighted the importance of geography in the Waldorf school curriculum - describing it as the 'mother subject' that brings a 'unity to all the other subjects' (Steiner, 1998, p.162) - relatively little attention has been given to this area of the curriculum either from within the Waldorf community or by academic research.<sup>2</sup> This is, I consider, to the detriment of both Waldorf pupils whose worldviews are, to some extent, still shaped by the geography they are taught at school, and to the Waldorf curriculum which needs to evolve to be of relevance in a fast-changing world. Moreover, given that the traditional aim of geography is to synthesize knowledge (of geology, vegetation, climate, people etc.) and develop understanding of the *whole* (space, regions, place etc.), and Waldorf education prioritizes learning from the *whole*, the subject complements the Waldorf ethos. However, while geography has been an integral part of the Waldorf curriculum for nearly a century its epistemological and conceptual framework requires renewal and development. Furthermore, and I base this view on my own experience as both a Waldorf teacher and researcher, geography is arguably one of the most challenging subjects to teach.<sup>3</sup>

As a purely academic discipline geography has traditionally invited debate and controversy (for a thorough history of this complex intellectual narrative, which is beyond the scope of this paper, see Livingstone, 2000). This is related to both the scope of the subject (the content of space and place) as well as the various paradigms or ways of understanding the world that compete within geography's epistemological framework. Geographical understanding is embedded in views on ontology, ideology, epistemology and power. Hence, questions of geographical knowledge and understanding have, essentially, also been questions of philosophy and worldview (e.g. positivism, structuralism, phenomenology, relativism etc.). Likewise, geography in the Waldorf context cannot be separated from the philosophy that underpins it. For Waldorf education to gain more credibility in the academic world the impact of this philosophy on its curriculum knowledge needs to be understood and rigorously defended. Additionally, better understanding of the intellectual position of Waldorf curriculum knowledge (and comparison with the mainstream) is needed if teacher knowledge within Steiner education is to be broadened and strengthened. Awareness of different forms of subject knowledge as well as the pedagogy and thinking activity these involve is also necessary for increasing numbers of UK Waldorf schools as they deliver both state and Waldorf curricula (i.e. GCSE/A level and main lessons).<sup>4</sup> In the modern educational climate the scope for integrating different approaches to knowledge and learning therefore needs to be considered (Woods et al, 2005).

While academic research has acknowledged the benefits to learners of Waldorf's imaginative approach to subject knowledge (e.g. Nielsen, 2003; Woods et al, 2005; Ashley, 2006a, 2006b; Wright, 2011, 2013), some studies have also highlighted tensions (e.g. Jelinek & Sun, 2003; Wright, 2009). These questions have mainly arisen not from questioning the importance of imagination in learning, which arguably few educationalists would dispute, or the Waldorf principle of learning at a pace suited to the child, but from academic views of what constitutes valid subject knowledge and thinking skills in today's world. Moreover, these views highlight the epistemological gulf between academic models of the curriculum and learning, which draw clear distinctions between curriculum knowledge and pedagogy, and the non-dualistic Waldorf model, where subject knowledge is closely linked to the process of knowledge transmission or teaching method. These two different views on curriculum knowledge - one based on scientific and social-theoretical frameworks, the other on an anthroposophical understanding of the child - account for much of the epistemological gap between Waldorf education and the mainstream. To explore this I will focus on one area of the Waldorf education: formulations of 'geo' or the earth that underpin the geography curriculum and, of equal importance, the image of the child who receives this knowledge. My guiding question is: *how are the earth and the pupil envisioned in mainstream and Waldorf approaches to teaching geography and what scope is there for these different discourses to learn from each other?* To answer this question I will firstly consider the epistemological framework of the mainstream geography curriculum, followed by an evaluation of dominant

2. There are some notable exceptions to this, notably David Brierley's guides to geography teaching in Waldorf schools (Brierley, 1998, 2003).

3. The author has taught in both the state and Waldorf schools.

4. With the movement towards state funding for Waldorf schools in the UK the challenge of integrating different forms of curriculum knowledge becomes increasingly relevant.

theoretical streams in geographical thought that underpin the different approaches to the subject. Attention will then shift towards the Waldorf geography curriculum and related pedagogy. In the final sections the Waldorf approach is considered from the perspective of modern, critical knowledge theory (i.e. the social production of knowledge) with a view to how different discourses may potentially be integrated in the classroom.

## Notions of 'geo' and the epistemic agency of the child

Whereas the mainstream geography curriculum is, to a large extent, shaped by the intellectual streams flowing down from academia (although not without considerable inertia and contest), the geography curriculum in Waldorf schools is closely tied to the developmental needs of the child, as understood by anthroposophy.<sup>5</sup> These different epistemological frameworks account for the different types of geographical knowledge taught as well as the different roles given to the child in knowledge production. In mainstream education, following the academic model, curriculum knowledge in geography has largely been debated and determined within the arena of contesting intellectual paradigms. Although these schools of thought support different views on knowledge (e.g. positivism, social constructivism/ postmodernism, social realism etc.), and the debate is ongoing (see, for example, Fien, 1999; Firth, 2007; Butt, 2011; Curriculum Journal 22, vol. 3, 2011; Catlin and Martin, 2011), these academic formulations for knowledge, while they may be paradigmatically differentiated, share some common ground. Foremost, the general epistemological assumption is that knowledge is separate from the child: for knowledge to be valid it needs to be academically produced i.e. textually generated and conceptually defined. It then follows that assimilation of this knowledge by the pupil is a purely cognitive process. Such a view of knowledge is supported by the ontological assumption of dualism: the idea that (in brief) the 'object' world - the world perceived - is a separate reality from the individual or 'subject' who seeks to understand it. Crucially, this assumption also determines the role given to pupils in knowledge production and therefore their role as epistemic agents.

Given that the mainstream geography curriculum is driven foremost by theoretical conceptions of knowledge it is not surprising that the epistemic agency of the child has been undermined (Wright, 2013). With the contemporary curriculum debate in geography focusing largely on knowledge content significantly less attention is given to the receiver of this knowledge (the pupil) or pedagogy: these are considered separate from the knowledge question. Apart from experimentation with epistemologies more sensitive to the child's worldview, such as humanism (in the 1970s) and, more recently, relativism (e.g. Firth & Biddulph 2008, 2009a, 2009b), mainstream geography education has failed to develop an age-appropriate model of knowledge. Knowledge itself, rather than an understanding of how the child learns about the world through its own developing faculties (of focussed observation, reflection, cognition, imagination etc.) remains the overriding concern for curriculum producers.

Consequently, underpinning mainstream formulations of curriculum knowledge is essentially a linear view of the child's intellectual development. The pupil, at secondary level, is viewed primarily as a rational thinker with the capacity to analyse and assimilate conceptual knowledge in a similar way to an adult (see Lambert & Morgan, 2010). Traditionally, this has led to geography curricula fragmented into themes, modules or units, with knowledge divided into chunks of information, notably 'human' and 'physical' e.g. 'population', 'urban', 'biomes', 'rivers' etc. In this sense geographical interpretation of the world - the conceptual framework that defines the scope of geography - is theoretically determined. It therefore follows that subject knowledge has relied heavily on secondary and quantitative data (e.g. statistics, graphs etc.) or forms of knowledge that can be standardised and readily assessed.

Furthermore, other critically-orientated or more politicized proposals for curriculum knowledge, while they are driven by the emancipatory goals of social theory, struggle with the pedagogical idea of freedom *in*

5. The relationship between the mainstream school geography curriculum and academic geography has, traditionally, been complex and controversial. For details of this see Lambert & Morgan, 2010.

*the process of* knowledge creation.<sup>6</sup> While the modern focus on the social production of knowledge may expose knowledge's various power bases (European, white, middle class, male etc.) this also, arguably, undermines the epistemological agency of the pupil. In this sense the political overrides the personal. Additionally, knowledge viewed socially as a purely linguistic or textual creation elevates the epistemological status of analysis or deconstruction above the synthesizing human faculties of perception and imagination. In such a cultural and political knowledge framework any claims regarding direct insight into the world (i.e. truth claims) remain invalid. On the contrary, the main task of geography should be to deconstruct the competing 'narratives' or 'knowledges' that tell us how the world is. Tensions between curriculum knowledges therefore highlight different epistemological and ontological viewpoints.

Hence, while relativism raises awareness of how knowledge is socially and culturally positioned, and this undoubtedly has educational value, the pupil is de-centred and marginalised in the knowledge process. This effectively undermines the most personal element of knowledge production - imagination - which has a vital impact on the way the world is interpreted and the meaning it is given. For example, emerging in recent critical texts in modern geography education is the idea that the earth's biomes, such as tropical rainforest, should be understood as inventions of the mind generated by scientific and political myth-making (Stott, 2001; Stott & Sullivan, 2003). In such extreme, abstract forms of knowledge theory there is little acknowledgement of the role that sense of wonder (inspired by descriptive narrative, images, direct perception etc.) plays in pupil engagement and learning about the world.<sup>7</sup> The view that such direct forms of pupil engagement are necessary elements of geographical understanding, including conceptual learning, is considered limited.<sup>8</sup>

These different views on knowledge - one theoretically-driven and conceptually prescribed, the other phenomenological and embodied - inform the two different geography curricula and educational goals considered here.<sup>9</sup> Each gives a different epistemological status to the child. One could go as far as to say that academic or theoretical formulations of the curriculum envisage pupils as subordinate to knowledge: the goal of geography education is for pupils to fit the knowledge rather than for knowledge to adapt to the pupil. For example, GCSE geography curricula in the UK, as noted above, present the world in discrete, conceptually-packaged blocks or themes (so-called 'units'). The scope of geographical understanding is therefore determined according to purely rational criteria that can, as the end goal, be assessed and quantified. Waldorf education, however, challenges this view. In this holistic model there is an evolutionary conception of curriculum knowledge. For geography, 'subject' and 'object' - the pupil and the world - are conceived within a non-dualistic framework as a unity, with knowledge evolving according to how the child develops and cognizes the world. Moreover, in this model the affective or qualitative element of knowledge takes precedent over

6. I make an important distinction here between different notions of freedom and progressiveness in geography education. Social-theoretical or critical frameworks of knowledge (e.g. social-constructivist, social realist, radical etc.) traditionally have a strong political agenda: to make a better or more equitable society. Phenomenological or human-centred approaches to knowledge are primarily concerned with individual freedom in knowledge creation. This raises the question of what kind of knowledge and understanding the 'freely' thinking pupil will create. This is considered further below.

7. The idea that through the faculties of perception and imagination humans can achieve direct knowledge and understanding of nature is an epistemological claim of phenomenology. However, different schools of phenomenology have different ontologies or views on reality and how this is accessed. Waldorf education is underpinned by Goethe's spiritual epistemology that perception, combined with imagination, acts as a bridge between the sense world and a metaphysical realm of universal laws that governs nature (see Welburn, 2004). In a pedagogical sense Steiner used the term 'concrete images' to refer to mental pictures that correspond closely to the physical world directly perceived. As such, he intended the geographical imagination to be both empirically valid, or 'a true seeing in space' (i.e. not mere fantasy) that encapsulates the essence of places, biomes and regions (Steiner, 1996).

8. Suchantke (2001), for example, does this successfully in his detailed descriptions of the rainforest and other natural regions. In his *Eco-geography* he works from observation of landscape, including plant and animal forms, to a conceptual understanding of the natural laws that govern biomes. In the classroom, however, there are diverse forms of media that enable pupils to build mental images and thereby 'enter' into the landscape i.e. spoken narrative, written text, film, photographs etc. The pedagogical aim is for the pictorial element of knowledge to broaden and deepen conceptual understanding.

9. These two approaches to knowledge support different views on thinking and learning. While theoretical knowledge can be viewed as a collective and formalized type of imagination, it is abstract and pre-defined. In this sense it works into the present from the past. Working pedagogically *with* the imagination, on the other hand, invests knowledge with individuality, flexibility and fluidity - traits which require inner activity and presence. However, this does not imply that theory or conceptual frameworks do not have a place in geography education, or that mental images do not require clear definition and reflection to become authentic and transferable knowledge (see below).

the theoretical or purely conceptual. It should also be noted that these different epistemological frameworks are not only confined to school curricula but are intrinsic to the wider, long-standing, intellectual tradition and debate surrounding the subject. These academic streams can be broadly described as phenomenological and theoretical.

## Phenomenological and theoretical streams in geographical thought

While it is beyond the scope of this paper to discuss in detail geography's intellectual history (see Livingstone, 1992), two broad streams of thought can be identified that uphold different views on the nature and scope of the subject. These can be loosely defined as *theoretical-analytical* and *human-centred* or *phenomenological*. These meta-narratives have also had a significant impact on the curriculum debate in geography, as well as pedagogy, and the envisaged role of the pupil in knowledge production. Furthermore, they provide a useful intellectual background to help situate the different ways geographical knowledge is conceived in mainstream and Waldorf schools. Undoubtedly, the most powerful intellectual impulse within western, post-Enlightenment geography has been the quest for rationalism. However, running alongside this, as a counter-current, has been an enduring resistance to a purely rational interpretation of the world, one that allows for other dimensions of being to inhabit geographical understanding. How have these different intellectual traditions become manifest in geography's intellectual history?

Following the post-Kantian turn (away from a metaphysical or divinely-ordered worldview), geography evolved into a subject for the rational mind. Challenging the cosmographic visions of pre-modernism, where man and earth were centred in a greater, divinely-ordered universe, geography's focus shifted towards the sense world.<sup>10</sup> Propelled initially by Darwinism, in the early nineteenth-century teleological interpretations of the earth's natural spaces (which included man) were superseded by evolutionary ones. Through crude forms of organic analogy and environmental determinism geographical thought reflected an intellectual descent into matter with a world conception based on physical and biological laws. Running through the course of geography's intellectual tradition, and led by the various impulses of natural science, social theory, information technology and data, this separation (and de-centring) of the human from the cosmos has followed various theoretically-informed paths (e.g. positivism, radicalism, relativism etc.). Two elements of rationalism have also emerged to shape modern geographical discourse: First, the academic fragmentation of knowledge - the breaking down of 'geo' - according to theoretical schemata: Second, the movement away from empiricism towards social-theoretical frameworks of understanding.<sup>11</sup> Apart from brief experimentation with pupil-centred approaches to knowledge, such as humanism, modernism's rationalist project has dominated mainstream geography education. This has led to a highly prescribed knowledge-based curriculum framed on clearly defined concepts. Moreover, such a knowledge schema is closely tied to the standardized procedure of pupil assessment (knowledge tends to be quantifiable; cognitive skills in geography, such as analyzing data, are defined in such a way that they can be easily assessed etc.). In this sense a rational approach to geography relies predominantly on the power of reasoning or analysis to achieve understanding. Not surprisingly, therefore, holistic ideas about the earth as well as organic and imagination-based learning strategies have remained at the fringes of modern educational discourse and acceptability.

However, human-centred academic discourses in geography have endured (see Short, 2003) - a stream that has its roots in the pre-modernist, non-dualistic worldview, or monism. Central to this tradition is the idea that man is embedded in the universe or, in geographical terminology, a 'cosmography'. Furthermore, and this became into an epistemological principle of phenomenology, knowledge is considered a product of the self *embodied* and *interacting* with the world through the faculties of perception, thinking, feeling and action. Human-centred discourses therefore highlight the role of individual experience in knowledge

10. Renaissance geography's non-dualistic vision of man and earth, bound by a divine order, is clearly represented in heart-shaped or 'cordiform' world maps. See chapter 2: '*A Heart-Shaped World?*' in Short (2000) and also Cosgrove (2001).

11. The epistemological concept of empiricism is complex. Whereas Alexander von Humboldt, for example, integrated rigorous observation and description of the world with his own artistic sense, scientific empiricism relies traditionally on strict scientific procedure to make knowledge claims. Critical-theoretical discourse in geography, however, takes issue with any forms of knowledge that assume neutrality (including those based on observation) or do not take into account its social origins.

production, allowing for the non-rational (feelings, intuitions, wonder etc.) to inhabit perception and enrich understanding of the world. In this sense epistemology is personal, on-going and creative, with knowledge conceived organically as inseparable from human *relationship* to the world. Moreover, it is also through this relationship that the individual is transformed (Husserl, 1960; Welburn, 2007). In geography human-centred discourses have their epistemological foundation in phenomenology and their traditional subject focus in the study of man and landscape (see Wylie, 2007). However, although phenomenology foregrounds perception and experience in knowledge production there is no unified ontology within this tradition. While there may be a universal assumption of 'essence' - a realm at the interface of perception, ideation and the metaphysical (Husserl, 1960; Merleau-Ponty, 1962) - much of geography's experiment with humanism, for example, equates *lifeworld*, or the world inhabited, with *sense world*. As such, the epistemological status of imagination in geography remains highly contested, even within the phenomenological school.

This touches on a key tension between human-centred and theoretical traditions in geography, one that also permeates the two different curricula considered here, that is, *conflicting views on imagination as a path to knowledge*. On the one hand, modern geographical discourse, largely informed by social theory and therefore critically inclined, challenges the idea that the individual can gain direct insight into (and produce knowledge of) the world. For the poststructuralist, for example, such a claim is based on the erroneous assumption of a centred, neutral 'presence' or a self that, through its own innate capacity, knows.<sup>12</sup> For the poststructuralist, however, what really matters is how the geographical imagination is socially and culturally produced. Furthermore, from the relativist viewpoint the holistic pretension of phenomenology, which claims knowledge of unifying principles (between man and environment, observer and the observed etc.), is invalid. Prioritizing the imaginative-metaphysical (some would say mythical) search for unity and order overlooks a world that is essentially fragmented, divided and damaged: socially, economically and politically. Synthetic geographies that seek unity, and this, to some extent, also applies to the traditional spatial definition of the *natural region*, are considered idealized, even anti-modern.<sup>13</sup> Analytical and politicized geographical discourses have long since critiqued this approach as apolitical and uncritical. Nonetheless, the pre-modern cosmographic dream - the existential search for unity with the world - still endures as a universal impulse in geographical thought. Moreover, a key element of this quest for holistic knowledge, which challenges geography's purely rational, scientific reason, is the epistemological status attached to the *image* - in both its outward form as geographical representation (i.e. pictorial images of the earth) and inwardly as mental pictures or geographical imaginations (Cosgrove 2001, 2005; Olsson, 2007).<sup>14</sup> It is this pictorial approach to subject knowledge that arguably defines Waldorf education. Attention will now turn towards the rationale for this, taking into account the close links between Waldorf curriculum knowledge, pedagogy and Steiner's understanding of child development. The following section is intended to inform, with a pedagogical evaluation to follow.

## The rationale for the Waldorf geography curriculum and epistemology

Steiner-Waldorf pedagogy and curriculum are guided by anthroposophy. This includes Steiner's understanding of the child (which informs teaching method) and his guidance for the deepening of subject knowledge. Although Steiner gave relatively few detailed indications regarding the content of different curriculum subjects, encouraging teachers to work freely out of their own research (and effectively take ownership of the curriculum), a synthetic, image-rich form of subject knowledge and a teacher-led, narrative method lies at the heart of the Waldorf approach. Essentially, both subject knowledge and pedagogy are specially adapted to the child. Furthermore, this adaptation is based on Steiner's holistic understanding of the child - conceived in terms of body, soul and spirit. According to this model consciousness is embedded within, and develops out of, the child's evolving spiritual-physical organism. The Waldorf geography curriculum and

12. Class, gender and ethnicity are also conditions that potentially impact on the way a person interprets and understands the world.

13. The synthetic idea of the 'region' is central to the geography's intellectual tradition. This has its roots in Greco-Roman geography, later developed through German idealism and the geographies this philosophy generated.

14. For example, Cosgrove highlights the existential significance and enduring authority of Apollo pictures of the earth - images that transcend any philosophical relativism.

epistemological framework closely follows this understanding of the child. Two salient features of Steiner's model of the child's cognitive development, which also have a direct bearing on how the child relates to and thinks about the spatial world, need to be identified.<sup>15</sup>

*First*, in Waldorf education engaging the child's *imagination* carries more significance, both educationally and for long-term adult development, than direct intellectual learning. Imagination, as Steiner deduced, works in accordance with the predominant 'soul' realm of feelings during the middle period of childhood (from 7 to 14 years).<sup>16</sup> Infused with feelings, imagination transcends verbal-analytical or rational thought and, as Steiner emphasized, allows the child to unite in a natural, living way with the mobile realm of picture-thinking.<sup>17</sup> In this sense imagination is closer to the child's reality than pure reasoning and, in the realm of mental picture formation, the child never tires (Steiner, 1995). Furthermore, nourishing the imagination not only benefits the child's intellectual development, including conceptual learning, but the general health of the bodily organism.<sup>18</sup> Secondly, the emergence of a *sense of self* or capacity for self-reflection (which Steiner termed the "I-in-thinking"), can cause a profound transformation in the way the child thinks about the world (see below). In Steiner education the task of geography is to bring the soul and spiritual being of the child (as it manifests in feeling and thought-life) into a healthy relationship with the spatio-physical world and its different spheres (mineral, biological, atmospheric, cultural etc.).<sup>19</sup> This is done by building imaginative pictures of the world from which the more defined or conceptual element of knowledge can be drawn. As the child develops its cognitive thinking the conceptual framework of the curriculum thus broadens and deepens.

Based on these general principles, from class 4 onwards the content of the Waldorf geography curriculum, together with its epistemological framework, undergoes a sequence of transformations in keeping with the child's growing spatial awareness and cognitive development.<sup>20</sup> Formal lessons in geography should, according to Steiner, only begin when there arises in the child's thinking a new sense of separation from the world - an emerging dualism - generated by self-reflection and the ability to think conceptually.<sup>21</sup> Geography in class 4 (9-10 years) takes as its starting point this transformation in the child's consciousness, from one previously unified with the world in fluid, dream-like imaginations to an awakening to concrete, physical reality. The external world can now be defined and understood according to primitive concepts. However, while the spatial world undergoes its first formal, abstract definition and demarcation (represented pictorially in simple hand-drawn maps that distinguish land-use in the neighbourhood) knowledge maintains strong connections with the child's inner life. This relationship is maintained in five key ways.

*First*, teachers use narrative (story, description, characterization etc.) to build a vivid *imaginative picture* of the neighbourhood from which the symbolic and conceptual element is elicited.<sup>22</sup> The resulting spatial representation is also pictorial and hand-drawn. While geography has its own conceptual or interpretive schema (and can easily become a theoretical and fact-laden subject) it is more important that knowledge and understanding evolve from a sense of wonder. Moreover, to allow for the necessary errors and illusions of subjectivity, and to stimulate creative thinking, this knowledge is, as much as possible, artistically rendered.

15. Steiner presents a holistic understanding of the child as a framework for pedagogy in *The Kingdom of Childhood* (1995) and *Education of the Child in the light of Anthroposophy* (1965).

16. Steiner relates the concept of 'soul' to the inner realm of feelings, through which human relationship to the world, including thinking, is personalized. During the middle period of childhood (7 to 14 years) the soul life is considered especially active, with thinking and feeling essentially interwoven. Puberty marks the birth of the independent intellect.

17. The importance of imagination in learning has been highlighted by a number of prominent educationalists e.g. Bruner, Eisner and Dewey.

18. Steiner draws a connection between intellectualized forms of learning in childhood and metabolic illnesses in later life (Steiner, 1988).

19. Steiner associates the reflective 'I' in thinking to the highest member of the human organization or the 'spiritual body', which incarnates into the three lower members (the physical, etheric and astral bodies).

20. I describe here only the archetypal year themes of the geography curriculum (which are taught in 'main lesson' blocks of approximately four consecutive weeks each) and related pedagogy. As one might expect, in practice there is considerable variation in teachers' interpretation of the curriculum and the quality of delivery (see Wright, 2009).

21. Geography in the Steiner school has its roots (in classes 1 to 3) in stories and animations of the natural world.

22. Steiner pedagogy, as much as possible, works from the whole body (i.e. sense perception) and imagination *to* the formulation of concepts. Sleep (and forgetting) is recognized as a necessary activity between these two stages of learning.

*Second*, the geographical knowledge taught is an *embodied* knowledge, one that draws on sense experiences and the child's egocentric view of the world, in so doing deepening the child's natural sense of belonging.<sup>23</sup> Hence, the initial focus is on the immediate surrounds of the neighbourhood. *Third*, to reflect the child's natural, unified worldview knowledge is presented as an *integrated totality* of objects and activities in space (fields and farms, resources and industry etc.) rather than in conceptually separated themes. *Fourth*, in accordance with this stage of child development the worldview given is essentially *deterministic*: just as the external environment impacts on the child so nature is presented as shaping patterns of human activity.<sup>24</sup> *Fifth*, to satisfy the pupil's need to simply 'know' rather than to intellectualize through analysis and judgement, knowledge is taught on authority in the form of simple causal relationships or *naive realist* concepts (Ulrich, 1994). For example, the location of industry is explained in relation to natural resources.

Through the middle school this epistemological framework adjusts to the child's evolving consciousness. In class 5 (10-11 years), as in preceding years, geography moves beyond the pupil's experiential domain to wider expanses of terra incognita, beginning with the home nation followed by the home continent (class 6, 11-12 years). While the imaginative rendering of knowledge continues to inform pedagogy (the use of descriptive narrative to construct vivid images and characterizations of people and places etc.) there are important changes in emphasis. Class 5 focuses on the organic unity of man and nature: the adaptation of humans to the earth's life rhythms in naturally-defined regions. It is this representation of the earth as a *living* organism, with particular focus on plant life, that unites geographical knowledge with the pupil's innate sense of the earth's livingness (Steiner, 1995). In class 6, however, as the child 'begins to discriminate between what is of soul, what is living, and what is dead' there is a shift in consciousness towards the inanimate world (Steiner, 1995).<sup>25</sup> For geography, this means attention is drawn towards the physical earth (geology, relief, rivers, climate etc.) and its effect on different peoples of the home continent (living in highland-lowland, northerly-southerly latitudes etc.). Study of both geographical areas - the home nation and the home continent - begins with a broad description of the physical whole (shapes of continents, mountain ranges, rivers etc.). Moreover, this awakening to the earth's physicality signifies a further stage in the emerging dualism between subject and object, self and the world. In response, the epistemic agency of the child also changes: thinking becomes more autonomous with a new desire to rationalize and understand the world. Although the intellect is yet to be fully born, geographical description now stimulates active questioning (Wright 2009, 2011b).<sup>26</sup> As such, at this stage there is a real need for vivid, mental images of people and landscapes from which basic causal relations and physical laws can be elicited. This is why Steiner stressed the importance of 'concrete' geographical imaginations, or a 'true seeing in space', that accurately reflects patterns in physical space (real distances, accurate scale etc.). Hence, in their constructions of 'geo' teachers now have to consider both elements of geographical knowledge: the aesthetic (i.e. a sense of place) as well as the geometrical.

Further changes in curriculum knowledge and cognitive engagement take place in the approach to puberty. In classes 7 and 8 (12-14 years) the geography curriculum responds to the child's growing awareness of the impulses and complexity of its own personality by shifting attention towards the cultural realm, which is now explored in continents beyond the pupil's own. Not only does this aim to help pupils find a foothold on their own inner life, it also nurtures empathy for different races and cultures: to understand and therefore bring *the other* into the pupil's own world conception (Richter et al 2000). This geographical knowledge has two other characteristics. First, to retain a holistic imagination of the earth's unity there is a focus on indigenous peoples and their adaptation to the biome (e.g. American Indians, nomads, Eskimos etc.), who are presented as archetypes of humanity (hunters and herders etc.). Second, this knowledge is often, though not always, embedded in a European historical narrative (e.g. 'The Explorers') that reflects the year theme (The Renaissance/Age of Discovery). For this reason geographical representation can veer towards

23. A study of local geography usually includes a guided walk around the vicinity of the school.

24. In the sense that the child is still yet to make true self-determined impressions on the world (an emergent feature of adolescence).

25. In the sense of a growing consciousness of the duality between self and the external world.

26. Steiner relates the real birth of the intellect, or the emancipation of thinking from the inner world of emotions, to changes undergone during puberty.



orientalism (a potential problem explored below).<sup>27</sup> Towards puberty some adjustment to method is also needed to keep pace with pupils' emerging faculties of comprehension, self-reflection and world awareness. While knowledge construction is still predominantly teacher-led, relying heavily on descriptive narrative, pupils' own knowledge and views need to be heard and accommodated. This, and the teaching of the purely conceptual element of geography (i.e. map reading, geographical terminology etc.) requires considerable adjustments to learning method.

Finally, geography in the upper school develops a wider ecological perspective in response to the biological changes experienced during puberty. Focusing, at first, on the dense mineral realm (class 9) the geographical picture then shifts towards the rhythmical, life-creating processes of the biosphere (class 10) and the atmosphere (class 11). Based on an understanding of the adolescent withdrawing into an independent soul life, and having to adjust this subjective realm to the outer world, geography aims to sustain a sense of *belonging* to a greater living system. In the Waldorf schema there is also a significant epistemological change in response to what is, at this stage, considered the birth of the intellect. With feelings now playing a more refined role in thinking, the capacity for independent rational judgement and evaluation (based on the evidence of the senses), begins to supersede the more inward-orientated emotional cognition of childhood. However, to avoid intellectual abstraction and excessive antipathy to the world a contextual or Goethean approach to knowledge is adopted, which takes close observation as both the starting point for understanding the earth's natural laws (of biomes, landscapes, peoples etc.) and to develop ideas and concepts organically. In this sense epistemology merges with the human senses and cognition, in so doing becoming *phenomenological method*. Knowledge construction, as much as possible, now becomes pupil-centred: a 'living and plastic imagination' (Rawson and Richter, 2000, p.152). Hence, the geographical imagination has, through the whole course of childhood, undergone a profound transformation. Beginning in infancy as an inwardly mobile interplay of sense perceptions and mental picture formation it becomes, by adolescence, an intentional, self-directed consciousness and reflection of the wider world. From the immediate, embodied sense world of 'dwelling' the geographical imagination, constructed through the will-in-thinking, expands beyond the realm of lived experience to embrace the whole world of 'terra incognita'.

## Questions of knowledge and learning

The two approaches to curriculum knowledge and learning considered here are underpinned by different epistemological frameworks and educational goals. While mainstream education adopts a more intellectualized, cognitive learning strategy within a clearly-defined conceptual framework, the Waldorf curriculum allows for knowledge to be adapted to suit the child, with greater attention given to the faculties of imagination and sense perception in knowledge building (Wright, 2013). Consequently, geographical knowledge exchanged in the Waldorf classroom has a more flexible and organic form, one that, to an extent, takes shape in the pedagogical transaction of imagination - a process largely orchestrated by teacher narrative within the unique context and dynamics of classroom discourse (Nielsen, 2003, Wright, 2009). Within this epistemological framework the non-rational (wonder, aesthetics etc.) plays an important role in knowledge construction. This form of engagement, together with the holistic worldview that guides the geographical imagination, combines into a powerful learning discourse that can, with the right control and delivery, convey a rich sense of the earth's places and regions.<sup>28</sup> Through such an approach geography can engage pupil interest in the world, including empathy for different cultures as well as nurturing a real sense of belonging.

However, aspects of Waldorf curriculum and pedagogy, underpinned by Steiner's esoteric and universalistic worldview, also invite controversy. This, in recent decades, has been highlighted by interest in the social production and cultural positioning of knowledge (in relation to race, class, gender, human relationship

27. By 'orientalism' is meant exotic and idealised representations of the (non-European) 'other'.

28. This depends principally on the teacher's ability to transform knowledge into an imaginative form as well as articulate and build this imagination verbally in a way that engages pupils. In this sense knowledge building and exchange in the classroom relies on what Nielsen calls 'imaginative transaction' or 'phenomenological moments' (2003, p. 14).

to nature etc.)<sup>29</sup> In particular, such relativist and critical views of knowledge raise questions concerning Waldorf's historical narrative or year theme (for example, class 7 and 'Discovery of the World') and its effect on the curriculum, including geography. From a purely academic position the problem here is Waldorf's evolutionary, epistemological framework - the idea of an incarnating (i.e. emerging), *centred* 'self' from which the pupil looks out to the world (via the senses) and forms ideas. While this spiritual epistemology grounds knowledge in the personal and metaphysical - the embodied realm of sense perception and the transcendence of imagination - the socio-political dimensions of knowledge are marginalized. Moreover, such a child-centred epistemology naturally leads over into the wider cultural and ethnocentric worldview in which the child is spatially situated. In the Waldorf context, as highlighted above, this can lead to a form of geographical knowledge that is explicitly Eurocentric, more so if knowledge of the 'Old' and 'New' worlds is bound up with the historicity and colonial tradition of the mother nation.<sup>30</sup> Furthermore, the idea of human adaptation and belonging to the biome, while this may suit anthroposophy's notion of human archetypes and holistic worldview, if handled crudely carries racial overtones of natural determinism and evolutionism (e.g. naturalistic portraits of indigenous non-Europeans living in unity with the environment: pygmies in Africa etc.).<sup>31</sup> While such one-sided representation can be avoided if the (regional) geographical imagination highlights the political and divisive as well as the natural and synthetic, this knowledge issue raises further questions. *First*, should Waldorf encourage more critical thinking as well as a more rigorous conceptual framework into its imaginative schema (for example, in classes 7 and 8)? *Second*, how can critical knowledge questions like these become a part of a class teacher's thinking about the curriculum, given that many are not subject specialists? *Third*, should Waldorf education even concern itself with such academic questions of knowledge which, it could be argued, are marginal to its holistic view of the child and educational goals?<sup>32</sup>

My own view is that these knowledge questions should be considered in a modern Waldorf curriculum. They can, to a certain extent, also be accommodated by Waldorf's main pedagogical medium: living, human interaction or classroom talk. However, it should also be noted that in the Waldorf context classroom discourse takes place within a certain teacher-pupil relationship and dynamic that determines the way knowledge is constructed, transmitted and developed. Moreover, this discursive arena is characterized by a certain tension, particularly in the older classes. On the one hand, Waldorf's narrative method (with considerably less emphasis on prescribed, textual knowledge or I.T. than the mainstream), as well as unique lesson structure, strengthens the position of the class teacher as knowledge authority.<sup>33</sup> On the other hand, given the emerging critical thinking of the adolescent, and developing world-awareness, there arises the need to *question* this knowledge.<sup>34</sup> As such, both the construction and scope of curriculum knowledge, as well as the cognitive activity this involves (imaginative *and* reflective/critical), depend largely on the nature of in-class, teacher-pupil exchanges. It is arguably here, in the domain of teacher narrative and classroom talk, with all the nuances of voice, emotion and meaning, that thinking and knowledge really evolve.

## Integrating learning discourses?

This paper has highlighted elements of Waldorf pedagogy (narrative method, focus on imagination etc.) and child-centred curriculum knowledge that could potentially benefit mainstream education. Likewise, it

29. Relativism and deconstruction of knowledge is very much a part of the modern academic paradigm in the humanities. Here, focus is on understanding the socio-cultural production and positioning of knowledge, including truth claims.

30. This may be a problem if geographical understanding of Africa or the Americas, for example, is led from the perspective of a world 'discovered' by Europeans.

31. The historical problem of academic geography's colonial representations has received considerable attention and critique (see Said, 1994; Driver, 2001).

32. Given that Steiner education is essentially concerned with the child's long-term spiritual, emotional and physical development rather than the shifting intellectual paradigms of the epoch.

33. A key part of the main lesson is the teacher's verbal presentation of new content (based on whole-class teaching) which is then recalled on the following day. A general principle of Waldorf education is also the recognition of the pupil's spiritual need for the natural authority of the class teacher, particularly in the lower school years.

34. Although modern forms of media (internet, television etc.) undoubtedly raises children's awareness of the wider world, we should not assume that such images, passively consumed, have the same depth of meaning as mental images constructed verbally in the classroom through living human interaction.

has also been suggested that Waldorf education could gain from a more critical and reflective approach to its own curriculum and pedagogy, in line with modern academic and educational thinking. While I have focused on geography there is also a real need for discussion (based on in-class empirical research) of the teaching of *all* subject areas in Waldorf schools, perhaps more so given the freedom that teachers are allowed in their interpretation of the curriculum.<sup>35</sup> Furthermore, it could be argued that the explicit metaphysical nature, universal claims and, to some extent, didactic tone of Steiner's anthroposophical teachings present obstacles to the up-dating of the educational system that arose from it. Dialogue between Waldorf education and the wider academic community (educational, philosophical and scientific) has, as such, been relatively limited and views remain considerably polarized.<sup>36</sup> However, although still occupying a marginal position in the educational landscape, particularly in the UK, Waldorf education has much to offer the emerging debate on human-centred knowledge and learning within a post-industrial world. The crossover between the Waldorf approach (holistic, organic, collaborative etc.) and academic views of learning that promote broader understanding of the intellect and curriculum knowledge has significant potential.<sup>37</sup>

Although views within the Waldorf community on the intellectual element of learning are by no means homogenous, a common public perception of Waldorf is, arguably, a lack of rigour in this domain (and how this disadvantages school leavers).<sup>38</sup> In addition, with Waldorf schools accommodating mainstream curricula (most offer GCSE, some also A level) and with more now emerging under state financial control (and therefore closer scrutiny), there is a real need to know how Waldorf pedagogy works to develop the intellect. Related to this is also a need to explore how different learning discourses could potentially support and work alongside each other. As suggested in this paper a key part of this is being able to integrate and develop key elements of thinking and learning, particularly imaginative and rational or analytical thought. How can these work together in a learning strategy?

Holistic educational methods support a broader, organic view of cognitive learning. One such strategy is to work intentionally with the interplay between rational thinking (questioning, forming concepts, making judgements, analyzing etc.) and imaginative or phenomenological engagement (see Hart 1998, 2007).<sup>39</sup> For example, narrative (as well as observations of pictures, objects etc.) can be used to create moments when the mind is absorbed in a mental image (through vivid description etc). In these moments analytical, reflective or critical thinking is intentionally suspended to allow, as much as possible, pupils' immersion in the object (or, in a geographical sense, entry into a landscape etc.). The pupil is then invited to bring a certain thought to bear on the mental picture, such as a question or judgement, which prompts intellectual interpretation. In this way the object becomes more closely defined (i.e. conceptually) or, for example, considered from another perspective or in a wider context. Through this rational, reflective process the imaginative picture itself undergoes a reshaping or metamorphosis. Moreover, new imaginations are inspired through rational thinking (questioning, discussion etc.). While this is only an indication of how a dialectical approach to thinking and learning might inform pedagogy, the potential benefits are considerable. *First*, through the construction of mental images pupils are engaged with knowledge building on a personal, affective level. This both deepens the meaning of knowledge and includes all pupils in its creation. *Second*, knowledge itself becomes a dynamic, transformative and collaborative process of building ideas rather than mere information acquisition. As such, through the fluidity and boundlessness of imagination knowledge, including its conceptual element, develops organically. *Third*, the medium through which such a dialectic is created, sustained and managed - classroom talk - is essentially human-centred. Together with 'phenomenological'

35. This is an area of practice that deserves attention. While academic writing on the Waldorf curriculum often focuses on the curriculum there is very limited empirical research on how the curriculum is interpreted and delivered in the classroom.

36. For example, even academic texts that support broader or child-centred views on education rarely explore Waldorf education in any detail, if at all. Likewise, media views on Waldorf education (including anti-Waldorf websites) are often informed by common myths, distortions and factual inaccuracies.

37. For example, the work of Heron and Reason on collaborative and organic learning strategies draws on Goethean epistemology (Heron and Reason, 1997).

38. Based my own research I would suggest there is considerable ambiguity within the Waldorf community regarding cognitive learning, particularly at the higher end of the lower school (i.e. classes 7-8).

39. While concepts and imaginations are both ways of thinking, as Steiner deduced concepts work to essentially distance the thinker from the world, in 'antipathy', whereas imagination draws the subject closer towards the reality of the world, as in 'sympathy' (Steiner, 1990).

moments of observation (of pictures, landscapes etc.) knowledge construction is therefore an embodied process, grounded in sense perception and human interaction. *Fourth*, the subjective element of knowledge is continually checked, contextualized and defined through an intellectual process involving reflection, discussion and judgement. Knowledge must ultimately be conceptually accurate, relevant and transferable.

Although, to some extent, the traditional rhythm of the Waldorf main lesson already demonstrates such a holistic approach to learning (delivering new content, then recall, application etc.), working with both imaginative and rational thinking, in a purposeful and integrated way, requires considerable skills in presenting knowledge and handling classroom discourse. Foremost, knowledge needs to be transformed by the teacher into a form that engages the pupil's imagination. Of equal importance, and depending on the age of the pupils, an inclusive 'discursive space' also needs to be created in which the teacher prompts reflection and clarifies ideas and concepts, and where pupils are encouraged to collaborate in developing knowledge further.<sup>40</sup> This is arguably the most challenging part of implementing such a discursive pedagogy since, during these moments, the teacher is required to elicit pupils' viewpoints, subdue his or her own voice and actively listen. To orchestrate such an organic process of knowledge building requires an ability to present, discuss, broaden and shape ideas through the management of complex narratives within the confines of space and time.

## Conclusion

Geography's intellectual history has evolved through complex, and often overlapping, discourses of intellectual (i.e. theory-driven) analysis and diverse imaginations of geo. In a pedagogical sense learning geography in the school classroom mirrors these streams, depending on both imaginative and more formalized, rational engagement for curriculum knowledge to have personal meaning, wider relevance and intellectual rigour. However, in the two educational traditions considered here - mainstream and Waldorf - these aspects of knowledge have become largely polarized. On the one hand, mainstream geography has, for the most part, followed academic formulations of knowledge and defined, cognitively-framed learning goals. On the other hand, the Waldorf curriculum and pedagogy follows a child-centred approach, where imagination (and sense perception) takes precedence over formalized, conceptual learning. Taken to extremes both strategies offer unsatisfactory approaches to teaching and learning geography.

In response to this problem it has been suggested that both sectors can learn from the best practices of each other. For Waldorf educators this means exploring ways that a flexible, human-centred epistemology can engage with modern, socially relevant views of knowledge. Moreover, this can potentially be achieved within the framework of Waldorf's narrative pedagogy. If so, subject knowledge and delivery, including constructions of geo, will still retain their vital, living quality.

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40. Empirical evidence suggests that even within the main lesson framework the dynamics of learning discourse are highly variable and achieve different results. While some teachers encourage free discussion and exploration of subjects other exercise much tighter control (Wright, 2009).

## References

- Ashley, M. (2006a). *Authority, anarchy and anachronism on the slopes of sustainability: Steiner-Waldorf pedagogy and the development of mature judgement*. Paper presented at BERA annual conference, University of Glamorgan, 14-17<sup>th</sup> September 2006.
- Ashley, M. (2006b). *Can one teacher know enough to teach year six everything? Lessons from Steiner-Waldorf Pedagogy*. Paper presented at Annual Meeting of American Educational Research Association, Chicago.
- Brierley, D. (1998). *In the sea of life enisled: an introduction to the teaching of geography in Waldorf education*. Oslo: Antropos Akademi.
- Brierley, D. (2003). *No man is an island*. Oslo: Antropos Akademi.
- Butt, G. (ed) (2011). *Geography, education and the future*. London: Continuum. Catling, S. and Martin, F. (2011). Contesting *powerful knowledge*: the primary geography curriculum as an articulation between academic and children's (ethno-) geographies. *Curriculum Journal*, 22, (3), 317-335.
- Cosgrove, D. (2001). *Appollo's eye: a cartographic genealogy of the earth in the western imagination*. John Hopkins University Press.
- Cosgrove, D. (2005). *Geographical imagination and the authority of images*. Hettner-Lecture: Franz Steiner Verlag. *Curriculum Journal*, 22, (3), 317-335.
- Driver, F. (2001). *Geography militant*. Oxford: Blackwell.
- Fien, J. (1999). Towards a map of commitment: a socially critical approach to geographical Education. *International Research in Geographical and Environmental Education*, 8, (2), 140-158.
- Firth, R. (2007). *Geography teachers, teaching and the issue of knowledge*. Nottingham: Nottingham Jubilee Press.
- Firth, R. & Biddulph, M. (2008). *Young people's geographies*. Nottingham: Nottingham Jubilee Press. Available at: <http://www.geography.org.uk/gtip/thinkpieces>
- Firth, R. & Biddulph, M. (2009a). Whose life is it anyway? Young people's geographies. In D. Mitchell (Ed.), *Living geography: exciting futures for teachers and students*. London: Optimus Education.
- Firth, R. & Biddulph, M. (2009b). Young people's geographies and school geography. *Teaching Geography*, Spring 2009, 32-34.
- Hart, T. (1998). A dialectic of knowing: integrating the intuitive and the analytic. *Encounter: Education for Meaning and Social Justice*, 11, 5-16.
- Hart, T. (2007). *From information to transformation - education for the evolution of consciousness*. New York: Peter Lang.
- Heron, J. & Reason, P. (1997). A Participatory inquiry paradigm. *Qualitative Inquiry* 3(3), 274-294.
- Husserl, E. (1960). *Cartesian meditations - an introduction to phenomenology* (The Hague).
- Jelinek, D. & Sun, L. (2003). *Does Waldorf offer a viable form of science education?* Waldorf Science Education Research Monograph.
- Lambert, D. & Morgan, J. (2010). *Teaching geography 11-18: a conceptual approach*. Maidenhead: Open University Press.
- Livingstone, D. (2000). *The geographical tradition*. Oxford: Blackwell.
- Merleau-Ponty, M. (1962). *Phenomenology of perception*. London: Routledge and Kegan Paul.
- Nielsen, T. (2003). *Rudolf Steiner's pedagogy of imagination: a phenomenological case study*. Paper given at the First International Conference on Imagination in Education, Vancouver, BC, Canada, 16-19 July 2003.
- Olsson, G. (2007). *Abysmal: a critique of cartographic reason*. The University of Chicago Press.
- Rawson, M. and Richter, T. (2000). *The educational tasks and content of the Steiner-Waldorf curriculum*.

- Forest Row: Steiner School Fellowship Publications.
- Short, J. (2000). *Alternative geographies*. Pearson.
- Said, E. (1994). *Culture and imperialism*. London: Vintage.
- Steiner, R. (1965). *The education of the child in the light of anthroposophy*. London: Rudolf Steiner Press.
- Steiner, R. (1988). *Deeper insights into education*. Anthroposophic Press.
- Steiner, R. (1990). *Study of man*. London: Rudolf Steiner Press.
- Steiner, R. (1995). *The kingdom of childhood*. London: Rudolf Steiner Press.
- Steiner, R. (1996). *Education for adolescents*. London: Rudolf Steiner Press.
- Stott, P. (2001). Jungles of the mind: the invention of the "Tropical Rainforest". *History Today*, 51, (5), 38-44.
- Stott, P. & Sullivan, S. (Eds) (2003). *Political ecology, science, myth and power*. London: Arnold.
- Suchantke, A. (2001). *Eco-geography - what we see when we look at landscapes*. Hudson, NY: Lindisfarne Books.
- Ullrich, H. (1994). Rudolf Steiner - a neo-romantic thinker and reformer. *Prospects: The Quarterly Review of Comparative Education*, 24, (3/4), 555-572.
- Welburn, A. (2004). *Rudolf Steiner's philosophy*. Edinburgh: Floris Press.
- Woods, P. (Ed) (2005). *Steiner schools in England*. DfES Research Report no. 645.
- Wright, P. (2009). *Holistic philosophy and classroom practice - an investigative study of the Steiner-waldorf approach to teaching geography*. Unpublished PhD thesis, Bristol University.
- Wright, P. (2011a). What is a human-centred geography? Stretching the geographical imagination in pursuit of holism. *Geography*, 96, (3), 156-160.
- Wright, P. (2011b). Exploring the role of imagination and narrative in geography teaching. *Geographical Education*, 24, 64-71.
- Wright, P. (in press). Theory of knowledge or knowledge of the child? Challenging the epistemological assumptions of the curriculum debate on geography from an alternative viewpoint. *Oxford Review of Education*.
- Wylie, J. (2007). *Landscape*. London: Routledge.