A Deleuzian reading of Hartshorne’s traditional concept of areal differentiation

Hojatollah Rahimi*

Yazd University, Iran

Areal differentiation is one of the critical and traditional concepts in geographical studies, reconsidered through the philosophy of Deleuze in the present article. It has been argued that geographical areas should be conceptualised as virtual entities whose source of differentiation rises from their internal force. The paper argues that geographers have access to the virtual entities only in the public words and ideas, tending to naturalise one image while excluding others and advocating particular power relations between different human/non-human elements in an area. Finally, it has been discussed that one of the main tasks of human geographers is to uncover naturalised images about the process of areal differentiation. It entails considering human geography as an artistic practice instead of scientific activity. When geographers-artists select an image of areal differentiation, they should be open to replacing it with new alternative images.

Key Words: areal differentiation as the virtual, areal images, areal artist, representation, practice

Article Info: Received: July 29, 2022; Revised: November 17, 2022; Accepted: November 18, 2022; Online: November 30, 2022.

* Correspondence address
Address: Department of Geography, Yazd University, Pajohesh St., Safaiyeh Neighborhood, Yazd, Iran
Phone: + 8911818411 | Email: rahimi.h@yazd.ac.ir

©2022 Human Geographies; The authors
This work is licensed under a Creative Commons Attribution 4.0 International License. DOI:10.5719/hgeo.2022.162.4
Introduction

Areal differentiation is an essential concept for human geography, viewed by Haggett (1991) as a shared field for geographers in which ecological studies and spatial analysis converge. Gregory et al. (2009) looked at it, alongside landscape and spatial analysis, as one of the three fundamental concepts within geography. Richthofen (1883) first conceptualised geography as the knowledge of areal differentiation, but Sauer coined the term later, in 1925. And finally, Hartshorne attempted through a detailed and critical analysis of previous geographical texts to represent a modern view of the concept in his *Nature of Geography (Nature)* in 1939 (Gregory et al., 2009). Hartshorne decided to use the more neutral word “variation” instead of “difference” later in *Perspective on the Nature of Geography (Perspective)* in 1959 because he thought “the term difference gives undue emphasis to the search for contrast” (Hartshorne, 1959:17). It indicates that he was consciously interested in studying “areal differentiation” instead of “areal contrast” or “areal oppositions”, and as far as we know, there is the same interest in the philosophy of Deleuze to search for differentiation instead of opposition.

In addition, Hartshorne (1939;1959) argues that geography should not be concerned with the substance of any particular phenomenon but has to focus on studying the areal differentiation within and among areas. Areal differentiation, according to him, refers to “the coexistence […] and interrelations among the different realms of reality” in and across areas (Hartshorne, 1959:13). What counts for Hartshorne and Deleuze is not the essence of the things but the relations between them (Deleuze and Parnet, 1987). The term “areal differentiation” in human geography can be equated with Deleuze and Guattari’s (1987) concepts of “the logic of AND” and “geography of relations” (Deleuze and Parnet, 1987).

Hart (1979) described Hartshorne as the “most quoted and least understood” geographer. Human geography, during the first half of the twentieth century, was criticised for different reasons: providing naïve regional classifications, including too many physical and human phenomena synthesised in a boring mode, accentuating the personality of areas (Johnston and Sidaway, 2015; Freeman, 2017; Guelke, 1977), assuming the unreal identity of areas (Johnston and Sidaway, 2015; Ackerman, 1945), and being unscientific, descriptive, and unanalytical (Van Cleef, 1952, Guelke, 1977). These critiques were presented at best in exceptionalism in geography (Schaefer, 1953). Advocating the notion of “geography as a spatial science”, Schaefer accused *Nature* of neglecting the spatial distribution of phenomena.

Seeing area as a pause rather than a process, he, as a positivist, wanted to limit geography to the study “of the laws governing the spatial distribution of certain features on the surface of the earth” (Schaefer, 1953:227). Despite its initial appeal, Schaefer’s formulation of geography was widely criticised later by different schools of geography (Harvey, 2010; Holt-Jensen, 1999; Grimes and Nubiola, 1997; Gregory, 1978; Pickles, 1985; Guelke, 1977). The last decades of the twentieth century witnessed a return to the concept of areal geography under
the title “new regional geography” (Gilbert, 1988; MacLeod and Jones, 2001; Guelke, 1977; Mügerauer, 1983; Holmén, 1995; Thrift, 1990, 1991, 1993; Kasala and Šifta, 2017). Guelke (1977:7), in defence of this return, pointed out that the “decline in the importance of regional geography has deprived geography of its center or core”. A wide range of approaches can be identified under the term "new regional geography". Some approaches agree (Entrikin, 1991; Campbell, 1994; Hart, 1982; Darby, 1962; Sack, 1974; Mügerauer, 1983), while others oppose (Agnew, 1989; Harvey, 1996; Massey, 1995; Smith, 2010). Nature’s main arguments. For some, an area is “a local response to capitalist processes”; for others, it is an arena of “relations between people and nature”. While some have explored how “meanings are produced and contested in regions”, others have focused on symbolic areas (or “identification region”). Some geographers have considered the problems of writing regions (or the issue of narrating regions), and some have regarded the area as a medium for social interaction (Gilbert, 1988; Thrift, 1990).

This article proposes a Deleuzian framework for human geography according to Hartshorne’s formulation of the concept of areal differentiation. Human geographers have published substantial research according to the philosophy of Deleuze in recent years (Saldanha, 2017; McCormack, 2003; McCormack, 2007; Marston et al., 2017; Anderson, 2006; Jones et al., 2007). The main idea of this article that differentiates it from the previous works on Deleuze in human geography is its engagement with Hartshorne’s concept of areal differentiation and the connections between this concept and the concepts introduced in the philosophy of Deleuze. This approach allows us to link the concept to ongoing debates within human geography, revitalizing Nature as the present. The virtual, for Deleuze, is “real without being actual, ideal without being abstract, and symbolic without being fictional” (Deleuze, 1994:208).

The virtual can be “qualified through the internal process of differentiation” (Hardt, 1995:100), which stems from “the explosive internal force” of the area itself. Then, every area, as the virtual, "differs already with itself immediately, internally” (Hardt, 1995:14). A geographical area differs from other areas because it primarily differs from itself. From this point of view, a geographical area is an arena of multiplicities and internal differentiation (Deleuze, 1994). Deleuze (Currier, 2003: 331) discusses multiplicity in the sense that it is composed of heterogeneous elements that are different in themselves “rather than being different from each other”. As Deleuze (1994:182) has pointed out, “multiplicity must not designate a combination of the many and the one, but rather an organization belonging to the many as such, which has no need whatsoever of unity to form a system”. It is a space of variation and freedom. In Deleuzian ontology, “the virtual and the actual are two mutually exclusive, yet jointly sufficient, characterizations of the real. Without being or resembling the actual, the virtual, nonetheless, can bring about actualization” (Parr, 2010:300).

In the next section, the paper considers the area as a virtual thing and argues that the source of areal differentiation rises from the internal force of the area itself. Next, it discusses the assumption that human geographers cannot make a
complete investigation and representation of the area as the virtual because of the screen-like structure of the human brain, and the fluid nature of the virtual will be discussed. The fourth section is devoted to considering the idea that human geographers should engage with the area as they are artists but not scientists.

Areal differentiation as the virtual

Areal differentiation results from a human being’s ability to create and interpret. Therefore, it is essential to consider a human being as the basis for our present discussion of the area as the virtual. Geography, as Hartshorne (1939; 1959:44) has pointed out, is neither the knowledge of human being nor the science of the earth, but the “man’s study of the earth as the planet of which he is the principal inhabitant”. Hence, “significance in geography is measured in terms of significance to man” (Hartshorne, 1959:42), and the form of an area and the spatial interaction within it are meaningful words only in terms of a human being’s interpretation (Hartshorne, 1959). Different features of the area and the quality of spatial interactions have a different significance for [...] “various groups and individuals within the same time” (Hartshorne, 1959:45). Geography, for Hartshorne, is with man, neither before nor after, and the virtuality of the area is the result of the human being as the virtual being.

In discussing the man, it seems that Hartshorne has followed and confirmed De Jong’s opinion (Hartshorne, 1939; 1959), according to which the human being is a multiple totality. As a geographical agent, man does not produce areal differentiation in the light of his single totality but in terms of several-totality or multiplicity. The same argument is in the philosophy of Deleuze, considering every human being several, a crowd, and a multiple (Deleuze and Guattari, 1988; Deleuze, 1994). Because of his multiplicity, man’s attitudes and purposes in different fields of life may be independent of each other (Hartshorne, 1959). Emphasising human beings as a several-totality makes it possible to shift our focus from studying “earth areas as they differ from each other” (Hartshorne, 1959:13) to a specific area as it differs within itself. The area, as the virtual, differs from itself because man, as a geographical agent, is different and several in itself. Because of his several-totality, human being moves from place to place and “sets other things in motion” (Hartshorne, 1959:19) without the ability to anticipate the ultimate destiny of the motions and movements. Through this unpredictable movement across the area, the human being can “discover the path to increase his power” (Hardt, 1995:100).

Hartshorne’s view of human being becomes more complicated by adding the element of freedom. Determinism, for him, “has no practical relevance for geography” (Hartshorne, 1959:152-153), and “the established laws of human psychology can as yet explain just a small part of all the decisions and actions of human being” (Hartshorne, 1959:154). According to Hartshorne, human freedom is essential not only at a more detailed and precise level of investigation but also at more generalised scales of investigation (Hartshorne, 1959). Hence,
the production of areal differentiation is the function of two distinct yet interlocking dimensions of man, including the human being as a several-totality and the human being as a free will.

Speaking of human beings in terms of freedom and multiplicity leads us to engage in questions of time and becoming. It is difficult to think of human movements across areas abstracted from time and becoming. Hartshorne’s discussion of time was concerned with attacking the Berkeley school of geography, which desired to return to geographies of the past through a nostalgic view of time (Mathewson, 2011; Harvey and Wardenga, 2006). There is a firm rejection of the ideas of the final cause and a return to the past in favour of those representing the efficient cause and the present geographies of an area in Nature and Perspective. We can find the same arguments and interests in Deleuze’s philosophy (Hardt, 1995). Hartshorne declares that “we cannot follow every root to its deepest end”; “we never fully explain the ultimate cause of any phenomenon” (Hartshorne, 1959:170). Hartshorne did not deny the role of the past in the production of the present form of the area. Rather, he wanted to say that even if we recognise the weight of the past on the present function and form of an area, we would never be able to go back into the past.

If we look closely at Nature, we find not only a rejection of a return to the origin (or the past) but also an equal denial of belief in the prediction of future developments (or going into the future) (Hartshorne, 1959). Hartshorne criticises positivist human geography for seeking to discover the laws of spatial distribution expected to act in the future (Schaefer, 1953), treating the area as a pause instead of a process. Learning spatial laws enables positivist geographers to deal with the future as if it has already occurred. Hartshorne has argued that “geography is concerned with areas as they exist today”. The present, for him, “is there, alive, [and] active” (Hartshorne, 1959:100). Hartshorne attempted to include once again the present at the centre of geographical debates through a critical engagement with a monopolised focus on historical geography in the Berkeley school of geography and the prediction methods in the school of spatial science.

In Hartshorne’s geography, the present time prevails over the past and the future. The present is a time of uncertain, mutual relations where contingency and discontinuity become prominent under the force of man’s multiplicity and freedom. It is a moment of competition between the past and the future, where the form and the function fall into an endless struggle. While form attempts to delay areal differentiation, the function advances it. Following Deleuze, the area, as the present, is a middle between the past and the future. Concepts like areal differentiation, the human being as a free will, the human being as a several-totality, and the area as the middle, having been crucial for Hartshorne and Deleuze, invite human geographers to be aware of the current fuzzy and contingent condition in areas they aim to study.
Areal image: How to represent the virtual?

The starting point of investigating areal differentiation, according to Hartshorne, is not to demonstrate and explore the difference. For him, difference “must be the case without the need of examination” (Hartshorne, 1959:16). Instead, geographical research should explain why every area differs in itself. The area is a live and active arena that reflects the continuing discontinuous movement of coexistent heterogeneous phenomena within itself under the principal influence of human beings as the free, several-totality, virtual. Hartshorne (1959), like Deleuze (1988), locates the area in the middle of the past and the future, the form and the function, and the being and the becoming. The middle, however, is not a space of fixity but a space of flow. The middle “is not an average but a fast motion and the absolute speed of movement” (Deleuze and Guattari, 1988:293).

This space of movement is composed of lines through which heterogeneous phenomena of the area are interrelated/dissociated from one another. Following Mackinder (1887), Hartshorne has argued in favour of a synthetic approach to geographical studies, investigating human and non-human elements in relation to each other. For him, the separation of human geography from physical geography prevents the successful development of geography (Hartshorne, 1959). Although the synthetic approach was disputed in the second half of the twentieth century (Ackerman, 1945; Kimble, 1951; Schaefer, 1953; Freeman, 2017), geographers (Murdoch, 1997, 1998; Wolch, 2002; Deas, 2004; Forsyth, 2004; Kwan, 2004; Warf, 2004; McFarlane, 2011; Anderson et al., 2012; Nir, 2012) and non-geographers (Deleuze and Guattari, 1988; Latour, 2005, 2012) have recently revitalised these interests. Latour (2012:82) has declared that “nature and society are no longer explanatory terms but rather something that requires a conjoined explanation”.

Three types of conjoining/dissociating lines are identifiable in a particular area, including molar, molecular, and the lines of flight (Deleuze and Guattari, 1988). Molar lines refer to hierarchized and stratified relationships between elements; molecular lines indicate spaces of cooperation, friendship, and pets; and the lines of flight are those along which “things come to pass, evolve, [and] form revolutions” (Deleuze, 1995:45). Areal differentiation is, therefore, the result of these three different lines of relations, and areal synthesis is the locus of simultaneous dynamic interaction among them (Deleuze and Guattari, 1988). As mentioned before, man’s creation and action have a principal position regarding the concept of areal differentiation, synthesis, and dynamics. The human being is the creator of areal differentiation.

Because of their several-totality, human beings continuously alienate themselves from the existing form of the area. It seems that the form cannot satisfactorily reflect human beings’ virtuality and is evaluated as disappointing and negative by those who endeavour to find therein their virtuality. The area becomes the space of negation and the prison of its creator. In other words, the area as what is actualised “does not resemble the virtuality that it embodies” (Hardt, 1995; Deleuze, 1991). Hence, human beings, as the principal producer of
areal differentiation, never stop their endeavour for satisfactory areal synthesis and attempts to pass it through the lines of flight. By moving themselves and other things from place to place, they actualise their virtuality in several ways. For Hartshorne, “the generation of new forms is open to human choice and initiative”, and therefore, “there is no unity of growth in the development of an area” (Hartshorne, 1939:294). The human being, as the virtual and the free several-totality, is capable of burning the form, “of going beyond both his own plan and his own condition, to finally express [his/her] naturing nature” (Hardt, 1995, Deleuze, 1991:107).

The structure of the human brain has an essential role in the quality of representing the virtuality of an area. Because of the screen-like structure of the brain, it is far from easy to say what the virtual is (Deleuze and McMuhan, 1998). Brain, like a screen, “is an image [of a motion] among other images” (Deleuze, 1991:24), and hence, the perception of an area by a human being is not the area plus motion but minus movement (Deleuze, 1991). For this, Deleuze, influenced by Bergson, believed that “we tend to think in terms of space rather than time” (Parr, 2010:229). In other words, we prefer to treat the area in terms of fixity and form instead of flow and function, “reducing it to a static and impersonal public form” (Parr, 2010:30). Hartshorne threw further insight into the problem of movement-image. He (1939:361), speaking of the subject of areal classification in geography, pointed out that “the fundamental function of geography requires geographer to divide the world [as a big image] arbitrarily into several areal parts [or into a series of smaller areal images]”. It means that, in the process of representing the virtual and evaluating the dynamics of an area, we have to not only divide motion into a series of static images but also divide big images into a series of smaller ones.

The danger of such a process is reducing the human being to these representations that may be treated as necessary properties of human beings as the virtual. Even if we can solve such brain-based limitations, we would never be able to escape the problem of motion-image since there are always elements of expression and representation in the process of understanding the areal dynamics and differentiation. We organise our image of the area “around the conventions of public language that conveys widely [naturalised] notions” (Parr, 2010:230). We interpret the areal differentiation in terms of public words but not those dictated by the area itself. Following Derrida (1998:158), it can be said that “we have access to […] so-called ‘virtual’ existence […] only in the text, and we have neither any means of altering nor any right to neglect this limitation”.

Relationships among heterogeneous elements are independent of human being’s representations and images. Words cannot help us to grasp relations as they appear in the outside world. What words attempt to represent is what is not present (Mugerauer, 2014). The relationship between words and what they aim to represent, i.e., areal synthesis, is like a play, a language play (Derrida, 2001; Gadamer, 2004; Lucy, 2008). A language game is present where we are to interpret the area (Gadamer, 2004). The identity of a thing “is grounded without being grounded in this possibility of play” (Lucy, 2008:95). This is a moment “in
which [...] everything becomes discourse” (Derrida, 1993:2). “It is only by a misuse of words that we can speak of a single” area (Hartshorne, 1939:294); and “to define any word, X, as representing the total material objects in an area, is not to present a single unified concept, but merely a selection of things” (Hartshorne, 1939:162). Yet despite all limitations, images and words are all we can have to engage with the fluidity and virtuality of the area (Mugerauer, 2014). Although they cannot represent the area as the virtual and are unable to fill the distance between the virtual and the actual, “they are our only resources, our only strategies amid” this unavoidable distance (Mugerauer, 2014: xxxvii).

We should note here that Deleuze’s concepts of the virtuality and the image are prone to be linked to new topics such as virtual worlds and virtual reality (VR) cartography. Human geographers, according to Deleuze, should consider differentiation as a relationship between the virtual and the actual. For Deleuze, “the virtual is not the opposite of the real, but the opposite of the actual” (McCabe, 2019:7). “Virtualities are always real and may become actualized in the present” (Hardt, 1995:17). The virtual should be considered an immanent plane from which the actual emerges.

For our purpose, the area is the virtual, and any specific image selected from it is the actual. Different perceptual apparatuses, including human apparatus like the human brain and non-human apparatus like VR cartography, are our means to choose or extract images from the area. Perceptual apparatus, according to Deleuze, may be non-human and unconscious because images are not dependent on and not produced by a conscious subject like a human being. Instead, they are immanent to the area as the virtual. Accordingly, perception is a way of engaging with an area “of imagery that is already there” (McCabe, 2019:3). Non-human apparatuses like VR cartography can simulate an area so geographers and people can interact with and manipulate it in a participatory manner. While the basic principle for the formation of areal images and areal representation is identity and similarity, area, as the production of human beings, is full of differentiation. Thus, articulating the areal differentiation around the public words and images tends to naturalise one image and representation while excluding others (Fairclough, 2001; Jørgensen and Phillips, 2002).

The naturalisation of areal images and representation is not a problem in itself. The naturalisation process attempts to naturalise useful practices and relations to facilitate the exercise and maintenance of particular power relations between human beings (Fairclough, 2001). The geography of relations (Deleuze and Parnet, 1987) necessarily corresponds to the geography of power. Then, critical language awareness is a crucial point of departure to trace and uncover power relations and to de-and-re-construct its related geography. Hence, one of the main tasks of human geographers is to uncover taken-for-granted, naturalised representations and images of the area. Yet, words and images are our key instruments to do this. Human geographers have to play not because they can hope to fill the distance between the virtual and the actual. They cannot “hope to make a complete investigation of all [...] interrelationships of the diverse factors” in an area (Hartshorne, 1959:45).
They cannot either hope to draw sound conclusions until the study is complete. Rather, human geographers have to play only insofar as they deconstruct fixed, naturalised power relations (Mugerauer, 2014; Derrida, 2004). To de- and re-construct geographies of power, they enter into the play to challenge naturalised representations and images that seem accurate representations and images. To deconstruct this illusion, we should resort to and revitalise the artistic dimensions of areal geography once again.

**Areal artist: between the image and the virtual**

The study of areal differentiation, according to Hart (1982:1), is “the highest form of the geographer’s art”. The aim of the artistic description of an area, as Parr (2010:230) pointed out, is not to “show us what the world is, but rather to imagine a possible world”. Instead of focusing on what it is, the artistic description focuses on what might be. Hence, good geographical writing is not grounded on the “austere and mechanical symbols of mathematics” that seek to explain reality in terms of fixed axioms at the price of sacrificing "rich nuances and subtle shadings that are possible with words” (Hart, 1982:27). Good artistic writing entails “the fullest exercise of all our skills at weaving together words, maps, pictures, and numbers into a coherent and comprehensible account” (Hart, 1982:27).

Any geographer interested in exploring the hierarchy between heterogeneous elements of an area “soon discovers that it is equal parts fearfully untidy, extraordinarily fascinating” and full of differentiation and chaos (Hart, 1982:22). These relations are “in a continual state of becoming so that even a true account would be immediately falsified as soon as completed” (Jessop, 2003:162). Geography, as Darby (1962:6) has pointed out, “is an art in that any presentation of [areal] facts must be selective and so involve choice, taste, and judgment”. It is this engagement with inaccessible reality which makes human geographers aware that words and images cannot remove the distance between the area as the virtual and the area as the actual.

Words and images are between the actual and the virtual. They are something similar to both the virtual and the actual and, at the same time, dissimilar to them. Geographers, as artists, know that any coherent weaving of words, maps, and images has no priority over other words and images. Art-oriented geographers “see the choice between vocabularies as made neither within a neutral and universal meta vocabulary nor by an attempt to fight one’s way past appearances to the real, but simply by playing the new off against the old” (Rorty, 1989:73). Areal images and representations are undecidable in the sense that once made, every areal image could always be otherwise than they are (Lucy, 2008). Geographers’ failure to fill the distance between the virtual and the actual should not lead us to conclude a nihilist view of human geography.

The failure of geographers to grasp the virtuality of the areal differentiation results from the changing condition of the area. The fact that areal images and representations are always susceptible to failure does not absolve us from our
responsibility as artists. In contrast, the assumption of predictability and decidability, accepted in positivist geography, is apposite to responsibility (Lucy, 2008). While positivist geography only emphasises universal and all-embracing images and representations, artist geographers are aware of multiple possibilities to imagine and represent an area. Disregarding failure, positivist geography is not more than passiveness in a world of fuzziness and multiplicity.

For a satisfying choice, human geographers “must be creative and critical, subjective and objective, enthusiastic and realistic, emotional and rational, unconsciously inspired, and a conscious artist” at the same time (Jessop, 2003:162). This geographical awareness results in accepting the falsifiability of any areal representation and image. Although the area is virtual, areal images presented by geographers can never grasp it completely. It is always a distance between the virtual and the image, enabling geographers to challenge existing images and propose other possible images of areal differentiation. They strive to give an accurate description of relations among heterogeneous elements according to the logic of AND while preparing themselves to accept the failure of their statements at the same moment (Deleuze and Guattari, 1987; Jessop, 2003). They should know that “failure is a necessary consequence of incompleteness” (Malpas and Wickham, 1995:40).

At this point of discussion, two complementary points need to be added concerning geographical images and representations. First, areal images should be considered chorological but not chorographical. The goal of chorography, as Harvey (1990:246) has pointed out, “is to deal separately with a part of the whole, whereas the task of human geography is to survey the whole in its just proportion”. The chorological viewpoint aims to explain how “heterogeneous materials of areas are joined together by causal relationships to form the character of the different areas of the world, and of the world as a whole” (Hartshorne, 1939; 1959:30). Chorographical thinking is more related to the study of the form than to investigating the content or function of an area.

Living in the age of flow and fuzziness forces us to prioritise chorographic thinking over chorological thinking. Having lost chorological thinking, we now think about an area by chorography, as if the world works in terms of unconnected human and non-human phenomena. Within this framework, “we do not yet possess the perceptual equipment to” image areal differentiation chorologically (Jameson, 1991:38-39). Human being continuously destroys the existing areal synthesis and changes the form without having chorological images of the change. Therefore, it is not important to consider and evaluate areal images in themselves, rather, their quality is crucial for contemporary human geography.

In addition, areal images and representations should be grounded in and produced through participatory practice. Participatory human geography does not seek to make a fixed consensus and compliance about areal images and representations among participants but to promote a way of thinking susceptible to creating change in those fixed images (Drummond and Themessl-Huber, 2007). Geographers should ask people what they want from geographers instead of telling them what they ought to want. Today, there is a growing interest in non-
representational theories in human geography (Thrift, 2008; Kindon et al., 2007). The focus of non-representational theory “is on what humans and/or non-humans do, and how the reproduction and revision of practices underpin the genesis and maintenance of interpretation and thus meaning” (Gregory et al., 2009:530). In other words, they strive to provide opportunities for de-and-reconstructing fixed and dogmatic images and representation of areal differentiation. What non-representational theories seek to explain is the outcomes of mutual interaction between representation and practice.

Conclusion

This paper has attempted to reread the traditional concept of areal differentiation by situating it within Deleuze’s philosophy. It argued that there are a series of concepts and assumptions in Nature and Perspective that lays it suitable for rereading them, as Hartshorne himself encouraged (1959), according to new approaches like Deleuzian post-structuralism. Human geography, influenced by Marxism geography, has placed an excessive emphasis on the study of areal contradictions at the cost of marginalising the analysis of areal differences in the last few decades. Hartshorne’s concept of areal differentiation provides a theoretical basis for human geographers to engage with new philosophical notions like the concept of difference in Deleuze’s philosophy.

For example, the study of areal differentiation in terms of Deleuze entails the acceptance of an approach according to which areal differentiation results from the internal force of the area itself. While a particular area first differs from other areas in Hartshorne’s philosophy, it, according to Deleuze, differs from itself and by itself in advance. It seems that the differentiation of the area as introduced by Hartshorne is a mere accidental exteriority that can sustain itself through the existence of an external cause, i.e., other areas. As a result, if we remove other areas, the area remains without differentiation and change. Differentiation, according to Deleuze, is the internal quality of the area. Every area is unique in itself. It is, to use Deleuze’s terminology, a minority. There is a diverse and complex set of geographical terms in the philosophy of Deleuze that can provide an engaging and dynamic synthetical framework for studying relationships between human and non-human elements in a specific area. Deleuze, along with Foucault, was one of the contemporary philosophers who chose a geographical approach and terms such as plateau, space, region, zone, and movement to escape Hegelian historicism.

Rereading Nature and Perspective with reference to Deleuze allows us to move from a conservative point of view (Smith, 1989) to a critical standpoint for studying areal differentiation. Deleuze, following Nietzsche, criticised the Kantian model of knowledge and proposed a radical model that challenges the value of knowledge itself and attempts to go beyond the conciliatory and conservative model of Kant. As we know, Hartshorne’s concept of areal differentiation has been expanded on the Kantian model of knowledge, which is, according to
Deleuze, conservative because of its incapability to contest the value of knowledge itself. Although Hartshorne’s philosophy is conservative in general, there are some assumptions and concepts in his philosophy that make them prone to radical reinterpretation by linking them to Deleuze’s philosophy. For example, although Hartshorne was aware of the misuse of words in geographical research and assumed that words are not able to represent the reality of the area, he did not emphasize the deconstructive potential of words that has for changing the power relations between humans and non-human elements in a particular area. Words, for Deleuze (1994), are multiplicities that constantly change in moving from one area to another one, or in terms of Deleuze’s terminology, from one plateau to another one, reordering the power relations. Hopefully, this paper opens new windows to link traditional concepts and arguments in geography to the current philosophies of difference.

References

Ackerman, E.A. (1945), "Geographic training, wartime research, and immediate professional objectives", Annals of the Association of American Geographers, vol. 35, no. 4, p. 121-143.

Agnew, J.A. (1989), "Sameness and difference: Hartshorne's The Nature of Geography and geography as areal variation" in N. Entrikin & S. (eds) Brunn Reflections on Richard Hartshorne's The Nature of Geography, p. 121-140.

Anderson, B. (2006), "Becoming and being hopeful: towards a theory of affect", Environment and planning D: society and space, vol. 24, no. 5, p. 733-752.

Anderson, B., Kearnes, M., McFarlane, C. & Swanton, D. (2012), "On assemblages and geography", Dialogues in Human Geography, vol. 2, no. 2, p. 171-189.

Campbell, C.S. (1994), "The Second Nature of Geography: Hartshorne as Humanist", The Professional Geographer, vol. 46, no. 4, p. 411-417.

van Cleef, E. (1952), "Areal differentiation and the "science" of geography", Science, vol. 115, no. 2998, p. 654-655.

Currier, D. (2003), "Feminist technological futures: Deleuze and body/technology assemblages", Feminist Theory, vol. 4, no. 3, p. 321-338.

Darby, H.C. (1962), "The problem of geographical description", Transactions and Papers, vol. 30, p. 1-14.

Deas, I. (2004), "From a new regionalism to an unusual regionalism? Mapping the emergence of non-standard regional configurations in Europe", 100th Annual Meeting, Association of American Geographers, Philadelphia.

Deleuze, G. (1991), Bergsonism (trans H. Tomlinson & B. Habberjam), Zone Books, New York.

Deleuze, G. (1994), Difference and repetition, Columbia University Press.

Deleuze, G. (1995), Negotiations, 1972-1990, Columbia University Press.

Deleuze, G. & Guattari, F. (1987), A thousand plateaus, (trans. B. Massumi), Te University of Minnesota Press, Minneapolis.
Deleuze, G. & Guattari, F. (1988), *A thousand plateaus: Capitalism and schizophrenia*, Bloomsbury Publishing.

Deleuze, G. & McMuhan, M. (1998), "The Brain Is the Screen: Interview with Gilles Deleuze on “The Time-Image”", *Discourse*, vol. 20, no. 3, p. 47-55.

Deleuze, G. & Parnet, C. (1987), Dialogues (trans H. Tomlinson & B. Habberjam), Athlone, London.

Derrida, J. (1993), 'Structure, sign, and play in the discourse of the human sciences', *A postmodern reader*, p. 223-242.

Derrida, J. (1998), *Of grammatology*, JHU Press.

Derrida, J. (2001), *Writing and difference*, Routledge.

Derrida, J. (2004), *Dissemination*, A&C Black.

Drummond, J.S. & Themessl-Huber, M. (2007), "The cyclical process of action research: The contribution of Gilles Deleuze", *Action Research*, vol. 5, no. 4, p. 430-448.

Entrikin, J.N. (1991), *The Betweenness of Place*, Springer.

Fairclough, N. (2001), *Language and power*, Pearson Education.

Forsyth, T. (2004), *Critical political ecology: the politics of environmental science*, Routledge.

Freeman, T.W. (2017), *A hundred years of geography*, Routledge.

Gadamer, H.-G. (2004), *Truth and method*, Bloomsbury Publishing.

Gilbert, A. (1988), "The new regional geography in English and French-speaking countries", *Progress in human geography*, vol. 12, no. 2, p. 208-228.

Gregory, D. (1978), *Ideology, science, and human geography*, St. Martin’s Press.

Gregory, D., Johnston, R., Pratt, G., Watts, M.J. & Whatmore, S. (2009), *The dictionary of human geography*, Blackwell, West Sussex.

Grimes, S. & Nubiola, J. (1997), "Reconsidering the exclusion of metaphysics in human geography", *Acta Philosophica*, vol. 6, no. 2, p. 265-276.

Guelke, L. (1977), "Regional geography", *The Professional Geographer*, vol. 29, no. 1, p. 1-7.

Haggett, P. (1991), *Geography: A modern synthesis*, Ulmer.

Hardt, M. (1995), *Gilles Deleuze: An apprenticeship in philosophy*, University of Minnesota Press.

Hart, J.F. (1979), 'THE 1950s', *Annals of the Association of American Geographers*, vol. 69, no. 1, p. 109-114.

Hart, J.F. (1982), 'The Highest Form of The Geographer’s Art', *Annals of the Association of American Geographers*, vol. 72, no. 1, p. 1-29.

Hartshorne, R. (1939), "The nature of geography: A critical survey of current thought in the light of the past", *Annals of the Association of American Geographers*, vol. 29, no. 3, p. 173-412.

Hartshorne, R. (1959), *Perspective on the Nature of Geography*, The Association of American Geographers, Chicago.

Harvey, D. (1990), *The condition of postmodernity: An enquiry into the conditions of cultural change*, Wiley-Blackwell.

Harvey, D. (1996), *Justice, Nature and the Geography of Difference*, Blackwell, Cambridge.
Harvey, D. (2010), *Social justice and the city*, University of Georgia Press.
Harvey, F. & Wardenga. U. (2006), "Richard Hartshorne’s adaptation of Alfred Hettner’s system of geography", *Journal of Historical Geography*, vol. 32, no. 2, p. 422-440.
Holmen, H. (1995), 'What’s new and what’s regional in the ‘new regional geography’?', *Geografiska Annaler: Series B, Human Geography*, vol. 77, no. 1, p. 47-63.
Holt-Jensen, A. (1999), *Geography-History and Concepts: A Student's Guide*, Sage.
Jameson, F. (1991), *Postmodernism, or, the cultural logic of late capitalism*, Duke University Press.
Jessop, B. (2003), 'Governance and meta-governance: on reflexivity, requisite variety and requisite irony' in H.P. Bang (ed) *Governance as Social and Political Communication*, p. 101-116.
Johnston, R. & Sidaway, J. (2015), *Geography and geographers: Anglo-American human geography since 1945*, Routledge.
Jones, J.P., Woodward, K. & Marston, S.A. (2007), 'Situating flatness', *Transactions of the Institute of British Geographers*, vol. 32, no. 2, p. 264-276.
Jørgensen, M.W. & Phillips, L.J. (2002), *Discourse analysis as theory and method*, Sage.
Kasala, K. & Šifta, M. (2017), 'The region as a concept: Traditional and constructivist view' *AUC GEOGRAPHICA*, vol. 52, no. 2, p. 111-121.
Kimble, G.H. (1951), 'The inadequacy of the regional concept', in L.D. Stamp and S.W. Wooldridge (eds), *London essays in geography*, Longmans Green, London, p. 151-174.
Kindon, S., Pain, R. & Kesby, M. (2007), *Participatory action research approaches and methods: Connecting people, participation and place*, Routledge.
Kwan, M.P. (2004), 'Beyond difference: From canonical geography to hybrid geographies', *Annals of the Association of American Geographers*, vol. 94, no. 4, p. 756-763.
Latour, B. (2005), *Reassembling the social: An introduction to actor-network-theory*, Oxford University Press.
Latour, B. (2012), *We have never been modern*, Harvard University Press.
Lucy, N. (2008), *A Derrida dictionary*, John Wiley & Sons.
Mackinder, H.J. (1887), 'On the scope and methods of geography', *Proceedings of the Royal Geographical Society and Monthly Record of Geography*, vol. 9, no. 3, p. 141-174.
Macleod, G. & Jones, M. (2001), 'Renewing the geography of regions', *Environment and Planning D: Society and space*, vol. 19, no. 6, p. 669-695.
Malpas, J. & Wickham, G. (1995), 'Governance and failure: on the limits of sociology', *The Australian and New Zealand Journal of Sociology*, vol. 31, no. 3, p. 37-50.
Marston, S.A., Jones, J.P. & Woodward, K. (2017), *Human geography without scale. Theory and Methods*, Routledge.
Massey, D.B. (1995), *Spatial divisions of labor: Social structures and the geography of production*, Psychology Press.
Mathewson, K. (2011), "Landscape Versus Region", The Wiley-Blackwell Companion to Human Geography, p. 130-145.
McCabe, H. (2019), 'We Have Always Been Virtual: Gilles Deleuze and the Computer-Generated Image', Proceedings of the 9th International Conference on Digital and Interactive Arts, p. 1-7.
McCormack, D.P. (2003), 'An event of geographical ethics in spaces of affect', Transactions of the Institute of British Geographers, vol. 28, no. 4, p. 488-507.
McCormack, D.P. (2007), 'Molecular affects in human geographies', Environment and Planning A, vol. 39, no. 2, p. 359-377.
McFarlane, C. (2011), 'The city as assemblage: dwelling and urban space', Environment and Planning D: Society and Space, vol. 29, no. 4, p. 649-671.
Mugerauer, R. (1983), 'Concerning regional geography as a hermeneutical discipline', Geographische Zeitschrift, vol. 69, no. 1, p. 57-67.
Mugerauer, R. (2014), Interpreting environments: Tradition, deconstruction, hermeneutics, University of Texas Press.
Murdoch, J. (1997), 'Inhuman/nonhuman/human: actor-network theory and the prospects for a nondualistic and symmetrical perspective on nature and society', Environment and Planning D: Society and Space, vol. 15, no. 6, p. 731-756.
Murdoch, J. (1998), 'The spaces of actor-network theory', Geoforum, vol. 29, no. 4, p. 357-374.
Nir, D. (2012), Region as a socio-environmental system: an introduction to a systemic regional geography, Springer Science & Business Media.
Parr, A. (2010), Deleuze Dictionary Revised Edition, Edinburgh University Press.
Pickles, J. (1985), Phenomenology, science and geography, Cambridge University Press.
Rorty, R. (1989), Contingency, irony, and solidarity, Cambridge University Press.
Sack, R.D. (1974), "Chorology and spatial analysis", Annals of the Association of American Geographers, vol. 64, no. 3, p. 439-452.
Saldanha, A. (2017), Space after Deleuze, Bloomsbury Academic.
Schaefer, F.K. (1953), "Exceptionalism in geography: A methodological examination", Annals of the Association of American Geographers, vol. 43, no. 3, p. 226-249.
Smith, N. (1989), 'Geography as museum: Private history and conservative idealism in The Nature of Geography' in N. Entrikin and S.D. Brunn (eds), Reflections on Richard Hartshorne's The Nature of Geography. Occasional Publications of the Association of American Geographers, p. 89-120.
Smith, N. (2010), Uneven development: nature, capital, and the production of space, University of Georgia Press.
Thrift, N. (1990), 'For a new regional geography 1', Progress in Human Geography, vol. 14, no. 2, p. 272-279.
Thrift, N. (1991), 'For a new regional geography 2', Progress in Human Geography, vol. 15, no. 4, p. 456-465.
Thrift, N. (1993), 'For a new regional geography 3', Progress in Human Geography, vol. 17, no. 1, p. 92-100.
Thrift, N. (2008), Non-representational theory: space, politics, affect, Routledge.
Warf, B. (2004), ‘Advancing human geography at the Commencement du Siecle’, *The Professional Geographer*, vol. 56, no. 1, p. 44-52.
Wolch, J. (2002), ‘Anima urbis’, *Progress in human geography*, vol. 26, no. 6, p. 721-742.