Chapter 14

The Smooth and the Striated

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In the fourteenth plateau of *A Thousand Plateaus*, Deleuze and Guattari develop a dichotomy between two kinds of space – the smooth and the striated. What I want to focus on in this chapter is the status of these two conceptions of space. As Deleuze and Guattari note, these two forms of space are only discovered in a mixed form, yet are capable of being analysed de jure through their separation. In this sense, the plateau on the smooth and striated can be seen as something like a transcendental deduction of their ontology of spaces. I will explore what Deleuze and Guattari mean when they say that they want to construct a theo-noology of smooth and striated spaces. I want to look at the ethical implications of this distinction, before looking at some alternative approaches to the issue of space. It should be noted that the question of the striation of space is one that is shared by Bergson, Heidegger, Merleau-Ponty and Sartre among others. The novelty of Deleuze and Guattari's account is in their formulation of the notion of smooth space as a response. I will begin by looking at the notion of striated space itself, and in particular will explore the degree to which we should see it as a structure or as a method, and the interrelation between these two characterisations.

Space and illusion

To begin with, therefore, I want to talk a little about the distinction itself. Deleuze and Guattari introduce the distinction between smooth and striated spaces as an account of the nature of the world. The examples given in *A Thousand Plateaus* suggest that smooth and striated spaces are real constituents of the structure of the world. I will return to the connection

between smooth and striated spaces and Spinoza later, but for now, I want to note that when dealing with the related category of the plane of immanence in his work on Spinoza, Deleuze writes that 'this plane of immanence or consistency is a plan, but not in the sense of a mental design, a project, a program; it is a plan in the geometric sense: a section, and intersection, a diagram' (Deleuze 1988: 122). As such, it appears to be the case that there is an objectivity to the notion of space that we use. A section is a structure that takes its characteristic from what it is a section of, even if it is unable to capture the entire nature of it. While this points to smooth and striated spaces being structures that organise the world, Deleuze and Guattari also write that 'the differences [between smooth and striated spaces] are not objective: it is possible to live striated on the deserts, steppes, or seas; it is possible to live smooth even in the cities, to be an urban nomad' (ATP 482). The implication here, therefore, is that smooth and striated spaces are not objective structures, but rather something like ethical choices about how we choose to organise our experience of the world. How do we reconcile these seemingly contrary accounts of the nature of smooth and striated space? We do so, I believe, by recognising that there is a dissymmetry between the terms smooth and striated. To jump ahead somewhat, Deleuze and Guattari will claim that smooth and striated spaces are both tendencies we encounter in the world, rather than states or structures. We fall into a transcendental illusion when we reify these tendencies into states.[1] The asymmetry between smooth and striated spaces emerges when we recognise that smoothness and striation are tendencies of smooth space itself.[2]

Deleuze and Guattari set out their approach to the smooth and the striated by claiming that they are attempting to develop a 'theo-noological model' (ATP 482) of smooth and striated spaces. They gloss this as follows: 'what distinguishes the two kinds of voyages is neither a measurable quantity of movement, nor something that would only be in the mind, but the mode of spatialisation, the manner of being in space, of being for space' (ATP 482). We can find a more illuminating account of the notion of noology in the plateau on the war machine. Here, they write that 'Noology, which is distinct from ideology, is precisely the study of images of thought, and their historicity' (ATP 376). I want to return to what exactly noology studies, but for the moment we can note that an image of thought is a conceptual apparatus that is antithetical to thinking about the world adequately for Deleuze and Guattari. While noology could be seen as some kind of a hermeneutics of suspicion of images of thought which analyses the methodological presuppositions of philosophies, it is more likely to be Deleuze and Guattari's term for the traditional approach to philosophy. As they note, on their reading, thinking itself is without image, and so falls outside the purview of noology:

> Thought is like the Vampire; it has no image, either to constitute a model of or to copy. In the smooth space of Zen, the arrow does not go from one point to another but is taken up at any point, to be sent to any other point, and tends to permute with the archer and the target. (ATP 377)

We can also note that noology's relationship with those thinkers who archetypally operate without images is one of 'confrontation'. As such, it appears that noology is not used by Deleuze and Guattari to designate a field of study in a conventional sense, but rather a general approach endemic in the history of philosophy. As such, noology refers to an approach Deleuze and Guattari wish to avoid. The term, theo-noology, which combines the notion of an image of thought with the concept of a supreme being, is therefore something like Heidegger's conception of ontotheology. I want to turn to this notion of theo-noology next before turning to what a smooth space might be.

Theo-noology and striated space

We can see the central question of smooth and striated spaces as being one of how we organise our understanding of the world. Seeing the world in terms of striated space is therefore to see it in terms of a set of categories. Deleuze and Guattari make a number of claims about these categories, but we can begin by noting that striated space involves 'formed and perceived things' and 'properties' (ATP 479). Striated space is therefore in essence what in *Difference and Repetition* would be called the space of representation. It is the space of made things that will be opposed to a conception of space as process. The question at the heart of the smooth and the striated is one of where the order that we find in the world around us comes from. For the philosopher of striated space, the key categories of order are measure and the subject-property structure.

Now, it is worth noting that what is at issue here is not the structure of the world, but rather a philosophical method whereby a certain structure is used to investigate the world. Counting is a method for dividing up the world, even if this method in turn presupposes a metaphysics. The application of striated space is thus tied to method:

> A 'method' is the striated space of the *cogitatio universalis* and draws a path that must be followed from one point to another. But the form of exteriority situates thought in a smooth space that it must occupy without counting, and for which there is no possible method, no conceivable reproduction, but only relays, intermezzos, resurgences. (ATP 377)

The mode of organisation adopted by the model of striated space involves the demarcation of a space. Just as the imposition of a set of coordinates allows us to specify positions within a landscape, striated space organises the world through a set of distinctions of logical space. In this respect, I want to turn to one of Deleuze's key examples: the distinction between felt making and weaving. Felt is a textile that, according to Deleuze and Guattari, is nomadic in origin. It is constructed by rolling fibres together so that they intertwine in a complex pattern, despite the surface of the felt feeling smooth. Thus, felt is a textile that emerges from the interrelation of a field of heterogeneous elements. Deleuze and Guattari write that it is 'in principle infinite, open, and unlimited in every direction; it has neither top nor bottom nor centre; it does not assign fixed and mobile elements but rather distributes a continuous variation' (ATP 475–6). Weaving, on the contrary, involves the construction of an ordered, delimited structure, involving the interrelation of two elements (the warp and weft). As Deleuze and Guattari note, weaving is for Plato the paradigm case of a royal science, and the model he introduces in order to clarify the nature of the statesman. In this first section, I want to look at Plato, along with another figure for whom weaving provides a paradigmatic case of method: Descartes. I want to go through a number of aspects of how Plato uses this example. The first thing to note is that Plato uses the example of weaving to illustrate his own method of determining the nature of the world. This is the method of division.

The Eleatic visitor gives the following compressed definition of the nature of weaving:

> Well then: all the things we make and acquire are either for the sake of our doing something, or they prevent something's happening to us. Of preventives, some are charms, whether divine or human, warding things off, others forms of defence. Of forms of defence some are ways of arming for war, others forms of protection. Of forms of protection some are screens, others means of warding off cold and hot weather. Of the latter type of protectives some are shelters, others coverings; of coverings one sort consists of things spread under, a different sort of things put round. Of things put round, some are cut out in one piece, while a different sort are compound; of the compound some are perforated, others bound together without perforation; of the unperforated some are made of the 'sinews' of things growing from the earth, others of hair. Of those made of hair, some are stuck together by means of water and earth, others are bound together with themselves. It is to these preventives and coverings manufactured from materials that are being bound together with themselves that we give the name 'clothes'; as for the expertise that especially has charge of clothes – just as before we gave the name of 'statesmanship' to the sort of expertise that especially had charge of the state, so too now shall we call this sort 'the art of clothes-making', from the thing itself? And shall we say that weaving too, in so far as it represented

the largest part of the manufacture of clothes, does not differ at all, except in name, from this art of clothes-making, just as in that other case we said that the art of kingship did not differ from that of statesmanship? (Plato 1997b: 279c–280b)

We can see here that the visitor's account of weaving operates by the progressive reduction of the logical space of what something could be. We begin with a very general term, and then by a progressive specification of this term, we arrive at a definition of the object in question, in this case, the art of weaving. There are some restrictions on the way in which we divide the whole into different parts. In the *Phaedrus*, Socrates states that we should 'cut up each kind according to its species along its natural joints, and not try to splinter any part, as a bad butcher might do' (Plato 1997a: 265e).

The key to the definition, and indeed the key to all sciences for Plato, is the activity of measuring. '[I]t is indeed the case, in a certain way, that all the products of the various sorts of expertise share in measurement' (Plato 1997b: 284e). This in fact has two forms. Either we 'measure the number, lengths, depths, breadths and speeds of things in relation to what is opposed to them' or we 'measure in relation to what is in due measure, what is fitting, the right moment, what is as it ought to be – everything that removes itself from the extremes to the middle' (Plato 1997b: 284e). The first of these cases might equate to something like the science of geometry, while the second is more like the comparison of objects of the world of appearance with the eternal forms. In both cases, we have a comparison of something, the ideal or the standard of measure, with its physical instantiation. Weaving, as an integral part of clothes making, clearly involves measure, in the way that the elements that determine the structure of the material must be related to one another in an orderly and homogeneous way – the textile must follow the structure of the pattern. Similarly, the statesman needs to act in a manner that is appropriate in all cases – to do what is in due measure, to allow the state to reconcile its conflicting tendencies. We can note that weaving for Plato is itself a model that we can use to understand statesmanship. Plato argues that weaving provides a model for statesmanship, as statesmanship involves the weaving together of courage and moderation, just as the weaver combines the warp and the weft of the cloth.

This notion of weaving, and also striated space, as method is also taken up by Descartes, who clarifies its relation to counting. Descartes' method of doubt is intended to remove all presuppositions from his enquiry, and thus allow an absolutely certain method of approaching philosophical problems. As his *Rules for the Direction of the Mind* shows, however, this method still relies on the method of striation we find in Plato. In

this regard, it is an important aside to note that Descartes, in the *Rules*, describes weaving and counting as the perfect preparation for philosophical investigation:

> [W]e must not take up the more difficult and arduous tasks immediately, but must first tackle the simplest and least exalted arts, and especially those in which order prevails – such as weaving or carpet making, or the more feminine arts of embroidery, in which threads are interwoven in an infinitely varied pattern. Number-games and any games involving arithmetic, and the like, belong here. It is surprising how much all these activities exercise our minds, provided of course we discover them for ourselves, and not from others. For, since nothing in these activities remains hidden and they are totally adapted to cognitive capacities, they present us in the most distinct way with innumerable instances of order, yet all regular. Human discernment consists entirely in the proper observance of such order. (Descartes 1985b: Rule 10)

The question which is central to this analysis is, what does the nature of dialectic, or weaving, have to do with the nature of space? In order to answer this question, we need to take a brief diversion into Bergson's account of counting. Bergson notes that in order to count a group, we cannot see them simply as a set of heterogeneous elements. If we are counting elements that are different from one another, then as he puts it, 'we can make an enumeration of them, but not a total' (Bergson 1910: 76). Counting thus implies that the elements that we count are identical, or at least that we treat them as identical for the purposes of counting. Nonetheless, counting also relies on the separateness of elements, and it is here that the notion of space is introduced:

> And yet they must be somehow distinct from one another, since otherwise they would merge into a single unit. Let us assume that the sheep in the flock are identical; they differ at least by the position which they occupy in space, otherwise they would not form a flock. But now let us even set aside the fifty sheep themselves and retain only the idea of them. Either we include them all in the same image, and it follows as a necessary consequence that we place them side by side in an ideal space, or else we repeat fifty times in succession the image of a single one, and in that case it does seem, indeed, that the series lies in duration rather than in space. But we shall soon find out that it cannot be so. For if we picture to ourselves each of the sheep in the flock in succession and separately, we shall never have to do with more than a single sheep. In order that the number should go on increasing in proportion as we advance, we must retain the successive images and set them alongside each of the new units which we picture to ourselves: now, it is in space that such a juxtaposition takes place and not in pure duration. In fact, it will be easily granted that counting material objects means thinking all these objects together, thereby leaving them in space. (Bergson 1910: 77)

Counting therefore implies a homogeneous space within which to situate the entities which are counted. It implies the distinction between the one and the many, and hence the notion that organisation is something that is separable from the elements to be organised. In fact, Descartes makes an even stronger claim, equating the dimensions of spatiality directly with measure. As he puts it in the *Regulae*:

> By 'dimension' we mean simply a mode or aspect in respect of which some subject is considered to be measurable. (Descartes 1985b: Rule 14)

Counting, and with it, measure, presuppose a certain form of organisation of the world, therefore. We can see the consequence of this model in Descartes' conception of the actual space of the world. Having developed a striated method of enquiry, he understands the world as a metric field of homogeneous extensions, which has only one property (impenetrability) that exceeds those found in Euclidean geometry:

> God himself has taught us that he has arranged all things in number, weight and measure. The knowledge of these truths is so natural to our souls that we cannot but judge them infallible when we conceive them distinctly, nor doubt that if God had created many worlds, they would be as true in each of them as in this one. (Descartes 1985c: 97)

Noology is therefore the study of philosophical method, from the point of view of those who operate within a field of striated space. Theo-noology presumably adds the further element to this image of thought by grounding it in a moment of transcendence such as a sphere of eternal natures (as we find in the myth of the demiurge in the *Timaeus*), or God as a guarantor of clear and distinct ideas (as in the *Meditations*).

I don't want to go into the criticisms of striated space here, as they are by now quite well rehearsed in the literature, but I will mention their general trend. Essentially, following Bergson, they argue that striated space is favoured because it allows certain forms of practical and political control to be developed. Thus, Platonism ultimately is adopted because it allows the ordering of the city-state – a claim developed by Derrida in his essay on the *pharmakon* (Derrida 1981: 61–172). The mathematicisation of matter allows us to manipulate it precisely, but does so on the basis of a falsification. Zeno's paradox shows the impossibility of understanding movement within a striated space.[3] Similarly, in terms of organic life, Bergson argues vigorously that the discrete nature of elements in a striated space is incompatible with life, which is necessarily open (the reproduction of life requires that an organism's boundaries with the world are not absolute, for instance, and the transversal sharing of DNA in bacteria and higher animals fits badly with the arborescent model of division that

Plato introduces).[4] Deleuze and Guattari posit a transcendental illusion by which we tend to view all bodies in the world as comprehensible under the form of measure.[5] Once we accept an account of the world as measure, the non-metric understanding of the world is an abstraction from the quantifiable world. For Deleuze and Guattari, on the contrary, metric space is a distortion of a more primordial understanding of the world as a field of pure intensity or process.

Smooth space and phenomenology

Resistance to a geometrical conception of method and of space is not a novel development on the part of Deleuze and Guattari. We can see, for instance, in Hegel's rejection of the understanding in favour of reason a move against the mathematicisation of dialectic. Similarly, Bergson's criticisms of counting, or Heidegger's account of enframing, both involve a rejection of the paradigm of striated space. In each of these cases, the account of what one must oppose to striated space differs, however. In order to be clear about what Deleuze and Guattari are proposing to replace striated space with, I want to introduce another philosopher who criticises striated space as a point of contrast – Maurice Merleau-Ponty.

Merleau-Ponty claims that the conception of the world based on a homogenous structure of space is unable to account for the presence of meaning in the world. We do not see a homogeneous world and add meaning to it, as a further layer of organisation. Rather, the space that we encounter in perception is already meaningful, and is already carved up according to possible actions of the body. As such, we live in a world that is constituted as a set of opportunities for action. Rather than perceiving simply objective structures in the world (things), plus a significance, we see the world as containing significance directly. The flame of a candle that has burnt a child appears to that child as directly repellent, just as the alarm clock calls out to be dealt with, for instance. Merleau-Ponty explains this reliance of space on our motor activities and intentions clearly with the example of the blind man:

> The blind man's cane has ceased to be an object for him, it is no longer perceived for itself; rather, the cane's furthest point is transformed into a sensitive zone, it increases the scope and the radius of the act of touching, and has become analogous to a gaze. In the exploration of objects, the length of the cane does not explicitly intervene as a middle term: the blind man knows its length by the position of objects, rather than the position of objects through the cane's length . . . Places in space are not defined as objective positions in relation to the objective position of our body, but rather they inscribe

around us the variable reach of our intentions and our gestures. (Merleau-Ponty 2012: 144)

Thus here metric space emerges secondarily to a space of sense and action that we find in lived experience. Metric space is an extrapolation of, in this case, the blind man's haptic relationship to the world.

What is the basis for Merleau-Ponty's criticism of striated space? Essentially, Merleau-Ponty takes issue with the central feature of the model of homogeneous space. As I said earlier, homogeneous space has the fundamental property of measurability, in that we can compare the objects within it by their superposition upon one another. A consequence of this is that an object within a Euclidean space is invariant to transformation by displacement, or in other words, that the space of Euclidean geometry functions as a homogeneous medium where position does not affect the constitution of objects within it. This allows us, for instance, to analyse clear and distinct ideas without having to take into account their relationships to other ideas. It also makes possible counting, as counting relies on a juxtaposition of elements whose properties are not affected by their relations to one another. Merleau-Ponty therefore formulates his own account of striated space as follows:

> The notion of a geometrical space indifferent to what it contains, or the notion of a pure movement that does not by itself alter the properties of the object, provided phenomena with the inert milieu of existence where each event could be linked to the physical conditions responsible for the intervening changes and where each event thus contributed to this determination of being that appeared to be the task of science. By developing the concept of the 'thing' in this way, scientific knowledge was unaware that its work was based upon a presupposition . . . The natural object remained for us an ideal unity and, according to Lachelier's famous phrase, an intertwining of general properties. (Merleau-Ponty 2012: 55)

Merleau-Ponty's claim is that such an account of the indifference of space to the objects found within it contradicts the basic structure of the perceived world. In fact, every object we perceive is perceived against a background, and this background provides the context which determines the object. In other words, the context of perception cannot be separated from our analysis of an object, and hence the space of perception cannot be seen as homogeneous in relation to the objects it contains, as context determines the actual nature of things. Measure relies on the fact that we could in principle superimpose one object on to another to compare their sizes, and hence on the idea that displacement does not affect the properties of an object. Once we realise that the background is an essential determinant in the perception of the object, we have to renounce the notion of a striated space. As Merleau-Ponty puts it,

When Gestalt theory tells us that a figure against a background is most basic sensible given we can have, this is not a contingent characteristic of factual perception that would, in an ideal analysis, leave us free to introduce the notion of impression. Rather, this is the very definition of the perceptual phenomenon, or that without which a phenomenon cannot be called perception. The perceptual 'something' is always in the middle of some other thing, it always belongs to a 'field'. (Merleau-Ponty 2012: 4)

Smooth space

Is Merleau-Ponty's rejection of striated space therefore an endorsement of a philosophy of smooth space? To begin to answer this question, we can turn to the figure who first developed the distinction between smooth and striated space: Pierre Boulez. As a composer, Boulez is interested primarily in the structure of music. His claim is that, traditionally, sound has been 'striated' by regular measure to allow us to produce music. Standard intervals allow the organisation of sound. Modern music, for Boulez, needs to renounce this structure, and instead operate in terms of a smooth space. Boulez defines it as follows:

Temperament – the choice of measure – will be an invaluable aid in estimating an interval; in short, it will '*striate*' the surface, the musical space, and will provide our perception – even if it is far from totally conscious – with useful points of reference; in the opposite cases, where partition can be effected at will, the ear will lose all landmarks and all absolute cognisance of intervals; this is comparable to the eye's inability to estimate distances on a perfectly smooth surface. (Boulez 1975: 85)

Now, we can note that this definition of smooth space is one that goes against Merleau-Ponty's claim that all spaces must be composed of heterogeneous elements. For Merleau-Ponty, the basic element of perception is complex – it is a relation between figure and background. Boulez's conception of smooth space here contains no figure, however, and so, on Merleau-Ponty's reading, would be wholly indeterminate. As the Gestalt psychologist Kurt Koffka, who was one of Merleau-Ponty's primary references, notes, we cannot view a homogeneous field without the emergence of visual artefacts which once again split that field into a figure and a background, even if these artefacts are hallucinations (Koffka 1935: 116–17). As such, the smooth space of Boulez cannot be equated with something like the perceptual space of phenomenology.

Deleuze and Guattari's response to Merleau-Ponty's position here would, I think, be the same as that which they make to Alois Riegl's aesthetics. Riegl argues that rather than primitive art being inferior to later realist art, it instead operates according to a different *kunstwollen*, or artistic

will. As such, he defines two different kinds of art – optic art and haptic art. Optic art tries to capture the world as it appears, and hence presents the world in terms of a field of depth. While it exists in the ancient world, it finds its philosophical basis in the Christian world, with the appreciation for the imperfections of nature that coincided with the belief that Christ had been made flesh, and hence that the weak and imperfect had moral and aesthetic value. Riegl claims that rather than being an inferior form of art, primitive art, such as that of the Egyptians, in fact operates according to a different motivation. Rather than attempting to enter into a sympathetic relationship with the world, it rejects the subjective appearance of things in favour of its objective structure. Frightened by the imperfections of the world of appearance, it aims at a world outside of this space. In this sense, it rejects the geometry of striated space. Instead, we have the archetypal case of the Egyptian figure pressed flat against the material ground (or even presented against an elevated ground). Instead of relations of depth, we have relations against a plane. As Riegl puts it, 'foreshortenings and shadows (as betrayers of depth) are avoided just as scrupulously as expressions of mental states (as betrayers of the mental life of the soul' (Riegl, quoted in Iversen 1993: 78). Here we have a similar rejection of the kind of geometric representation exemplified by Renaissance painting, which relied heavily on the techniques of metric space to present its vision of the world. Once again, however, what replaces striated space is not itself smooth space. The art of the Egyptian Imperium is in fact a hybrid form of smooth and striated space. As Deleuze and Guattari put it,

> [W]e will not define the haptic by the immobile background, by the plane and the contour, because these have to do with an already mixed state in which the haptic serves to striate, and uses its smooth components only in order to convert them to another kind of space. The haptic function and close vision presuppose the smooth, which has no background, plane, or contour, but rather changes in direction and local linkages between parts. (ATP 496)

At issue, I think, in the case of both Riegl's notion of haptic space and Merleau-Ponty's notion of the Gestalt, is that while both of these models transform our understanding of what form is in a way that takes them away from the traditional model of striated space, both still retain the centrality of the notion of form. Merleau-Ponty moves to a more sophisticated notion of form than found in Descartes, but while the notion of form is maintained, we are unable to fully explore what Deleuze and Guattari take to be central to smooth space – the notion of space as process or intensity. Any introduction of an object into such a space, no matter how subtle, risks crystallising and fixing smooth space into a striated structure.

So what is the structure of smooth space? To return to the example of felt, it has two levels of organisation. On the one hand, it presents a smooth surface – the plane without distances of Boulez. On the other, it is constituted of elements that form heterogeneous connections, folding together in seemingly arbitrary ways. Now, understanding this relationship between the two aspects of smooth space is not as straightforward as it appears. It is counterintuitive to call a space 'smooth' that is constituted from a number of elements that are heterogeneous. It would appear to be the case that if the elements constituting a space were distinct from one another, then the space itself must be discontinuous rather than smooth. This objection emerges from one of the central assumptions of much metaphysical thinking. If we return once more to Descartes' account of philosophy, we can see that if we accept that philosophy deals with clear and distinct ideas, then there is no way of conceiving of a smooth space. Descartes gives the following definition of clear and distinct ideas:

> A perception which can serve as the basis for a certain and indubitable judge-
> ment needs to be not merely clear but also distinct. I call a perception 'clear'
> when it is present and accessible to the attentive mind – just as we say that
> we see something clearly when it is present to the eye's gaze and stimulates
> it with a sufficient degree of strength and accessibility. I call a perception
> 'distinct' if, as well as being clear, it is so separated from all other perceptions
> that it contains within itself only what is clear. (Descartes 1985a: §45)

For Descartes, having an idea that is clear and distinct means having an idea that is separated/separable from other ideas. As Descartes shows in the *Meditations* in the case of the mind and the body, if we can show that we can formulate clear and distinct ideas of these two categories, then God guarantees that our ideas guarantee their ontological distinction. As such, the criterion of distinctness precludes the possibility of reconciling the unity of smooth space with the heterogeneity of the elements that compose it. If the elements that make up a smooth space are heterogeneous, then they are distinct, and hence the space is discontinuous rather than smooth. So how are we to conceive of smooth space? To get a clear sense of it, we need to return to one of Deleuze's earliest books, his study of Spinoza, the bulk of which was written in the 1950s. Here, Deleuze takes Spinoza to be criticising Descartes for adopting an essentially psychologistic criterion by which we identify the essence of something. 'Clarity and distinctness by themselves give us only an indeterminate knowledge; they fall short of a cause from which all the thing's properties would together follow, leading us only to recognise an object, the presence of an object, from the effect it has on us' (Deleuze 1990a: 153–4). On this reading, then, the Cartesian project of mapping the world in terms of clear and

distinct ideas, the method of striated spaces, only touches the surface of the world and not the causes of the impressions we have of it.

To begin to work out the consequences of this rejection of clear and distinct ideas for smooth space, we can note a similarity between this notion and Deleuze's characterisation of Spinoza's concept of a body. In describing a body, Deleuze gives the following account:

> How does Spinoza define a body? A body, of whatever kind, is defined by Spinoza in two simultaneous ways. In the first place, a body, however small it may be, is composed of an infinite number of particles; it is the relations of motion and rest, of speeds and slownesses between particles, that define a body, the individuality of a body. Secondly, a body affects other bodies, or is affected by other bodies; it is this capacity for affecting and being affected that also defines a body in its individuality. (Deleuze 1988: 123)

Here once again, we have two characteristics – a degree of affectivity, and a series of relations of speeds and slownesses between an infinity of particles. These map on to the smooth space and its constituent heterogeneous relations.

Let us go through these two aspects of smooth space in turn, beginning with its smooth homogeneity. We can start by noting that Boulez's account of smooth space as a purely homogeneous field matches well with the description of intensive space developed by the Scholastic philosopher Duns Scotus, a key influence on Deleuze. As Deleuze puts it:

> As long as the wall is white, no shape is distinguished from or in it . . . Let us return to Scotus: whiteness, he says, has various intensities; these are not added to whiteness as one thing to another thing, like shapes added to the wall on which it is drawn; its degrees of intensity are intrinsic determinations, intrinsic modes, of a whiteness that remains univocally the same under whichever modality it is considered. (Deleuze 1990a: 196)

Smooth space is like Scotus's field of intensive whiteness, therefore.[6] In this case, differences are intrinsic to the structure of the space, just as varying degrees of intensity of light are all a part of the same light. As such, it has an organisational structure without the formal boundaries that we discover in either classical or Gestalt models of difference. The determinations we find in smooth space are not, therefore, like the bodies that we find in the space of Euclidean geometry – essentially comprehensible without having to consider their positions and relations. Rather, as with a field of varying illumination, we have determinations which merge with one another at the edges. Deleuze presents this notion of determination in a slightly different context in *Difference and Repetition*:

> Ideas are complexes of coexistence. In a certain sense all Ideas coexist, but they do so at points, on the edges, and under glimmerings which never have

the uniformity of a natural light. On each occasion, obscurities and zones of shadow correspond to their distinction. Ideas are distinguished from one another, but not at all in the same manner as forms and the terms in which these are incarnated. (Deleuze 1994: 186–7)

Thus, for Spinoza, and for Deleuze, determination doesn't rely on a clear and distinct idea of the object. Just as a pattern of light can contain variations within it without ceasing to be one light, smooth space is determined by quantitative differences in intensity across a plane. Determinations are not extrinsic to space, essentially features of bodies within it, but are an intrinsic feature of the space itself. As such, space itself is no longer an inert medium where the displacement of a point across it results in no change in quality.

In this regard, there is a sharp difference between the space of Descartes and that of Spinoza. For Descartes, the position of a body in space is irrelevant to its essence (in the sense in which we can understand a body as being really distinct from other bodies, and thus comprehensible without reference to them). In this sense, in order to understand the interrelations of bodies in a striated space, we need to recognise that the space the bodies inhabit, and which allows them to communicate with one another, is something over and above the bodies themselves. Thus, to represent the bodies requires the addition of the homogeneous space to allow them to communicate. This is the origin of Deleuze and Guattari's claim that striated spaces require a 'supplementary dimension to that to which it gives rise (n +1)' (ATP 265). For a smooth space, while there are distinctions within the plane, these are modes of the plane itself, rather than objects contained within it. While the order of a smooth space is distinguishable, therefore, this distinguishability does not entail that we have a real distinction between determinations and the space they occupy, but rather a purely modal distinction. That is, these determinations are differences *within* the same smooth space, rather than differences between ontologically distinct entities. We can tie this into the claim made by Deleuze that, for Descartes, 'distinctness, taken as a norm of ideas, prejudges the status of things represented by ideas' (Deleuze 1990a: 324).

A consequence of this is that a smooth space is not a container for bodies at all, but is rather a conception of space that contains within itself integrally lines of force and variations in intensity. In this respect, Deleuze and Guattari's citation of Carpenter, Varley and Flaherty's text on Eskimo culture is important in showing the possibility of understanding space in a non-metric sense. They write:

Of course, what appeared to me as a monotonous land was, to the Aivilik, varied, filled with meaningful reference points. When I travel by car I can,

> with relative ease, pass through a complex and chaotic city, Detroit, for example, by simply following a handful of highway markers. I begin with the assumption that the streets are laid out in a grid and the knowledge that certain signs mark my route. Apparently the Aivilik have similar, though natural, reference points. By and large, these are not actual objects or points, but relationships between, say, contour, type of snow, wind, salt air, ice crack. I can best explain this with an illustration: two hunters casually followed a trail which I simply could not see, even when I bent close to scrutinise it; they did not kneel to examine it, but stood back, examining it at a distance. (Carpenter, Varley and Flaherty 1959)

Deleuze and Guattari introduce this example to show that rather than an extensive space of objects, the Eskimo orient themselves according to variations in the structure of the space around them. They operate according to a different conception of what it is to inhabit a space. Such a space is determined by the relations of elements, which draws us on to the second aspect of a smooth space.

In *A Thousand Plateaus*, smooth space is described as being composed of 'local operations involving changes of direction.' (ATP 478) While the fibres that make up the surface of felt have a form, what is important about them is the way they relate together with one another. The elements that make up smooth space are 'not atoms' (Deleuze 1990a: 204), as atoms would similarly have form. Rather, they are like the simple bodies of Spinoza's *Ethics*. Deleuze gives the following description of these bodies in *Expressionism in Philosophy*:

> The attribute of Extension has an extensive modal quality that actually divides into an infinity of simple bodies. These simple bodies are extrinsic parts which are only distinguished from one another, and which are only related to one another, through movement and rest. Movement and rest are precisely the form of extrinsic determination and external relation between simple bodies. Simple bodies are determined from outside to movement or rest *ad infinitum*, and are distinguished by the movement and rest to which they are determined. (Deleuze 1990a: 205)

How are we to interpret this claim that smooth space is understood through the interrelation of elements? If we say that felt is constituted through the heterogeneous connections of elements, do we not therefore assume that at the level of composition, there are real distinctions between its elements? The answer is that while we may be able to analyse felt into a relation between parts, the distinction between these parts is only ever modal, and is not a real distinction. We find no formal structures, therefore, either at the level of the composition, nor the structure of smooth space.

For Descartes, two kinds of distinctions coincide with one another: real

and numerical distinctions. When we look at two different objects in the world and make a distinction between them, then insofar as they differ in shape and relative position, we can declare that they are two really distinct substances, even though they differ only in terms of degrees of extension and extensive position. In other words, for Descartes, two bodies that differ purely in numerical terms can be said to be really distinct. We should note that this conception of smooth space is one that departs radically from the formal nature of striated space. A striated space relies on the notion of measurable form to determine the limits of an object ('like a shape on a wall', Deleuze 1990a: 196), because the determinations are not imposed upon space, whereas in a smooth space, determinations instead form a part of its nature. While there may be modal or numerical distinctions, these distinctions do not coincide with real distinctions between substances or determinations in spaces.

Conclusion

Smooth space can therefore be seen as a way to understand matter as structured without having to bring in the notion of forms or substance. Rather than the organisation of inert material across a homogeneous plane, smooth space is constituted through an active and heterogeneous field of elements that themselves are unformed. Such an approach rejects the moment of transcendence that we discover in the idea of a striated space. As Deleuze and Guattari put it, 'whereas in the striated, forms organise a matter, in the smooth, materials signal forces and serve as symptoms for them.' (ATP 479) Thus, we sense the relations of movement and rest through the intensities of the smooth space, much as the Eskimo navigate their terrain according to the direction of the wind, rather than visible landmarks.

At the beginning of this chapter I claimed that Deleuze and Guattari see the choice between smooth and striated spaces as an ethical choice. I want to return to this theme by asking how we apprehend smooth spaces. As Merleau-Ponty noted, the simplest mode of perception is a figure against a background. As such, smooth spaces require striation in order to find expression:

> If it is true that itinerant geometry and the nomadic number of smooth spaces are a constant inspiration to royal science and striated space, conversely, the metrics of striated spaces (*metron*) is indispensable for the translation of the strange data of a smooth multiplicity . . . [Translating] is an operation that undoubtedly consists in subjugating, overcoding, *metricising* smooth space, in neutralising it, but also in giving it a milieu of propagation,

extension, refraction, renewal, and impulse without which it would perhaps die of its own accord: like a mask without which it could neither breathe nor find a general form of expression. (ATP 486)

Smooth space is therefore like Nietzsche's Dionysian, which requires expression through Apollo, and in this respect the reference to Riegl in this plateau is apposite. Riegl, as a good post-Kantian, sees the development of haptic space as an attempt to return to the thing in itself. From this position, we can see why we have an ethical choice here. It is a question of how we conceive the ground of the striation we encounter. For Deleuze and Guattari, to privilege striated space is to fall prey to a transcendental illusion. It is to conflate the condition of presentation of smooth space with space itself. We might consider, however, whether Deleuze and Guattari don't fall prey to a transcendental illusion of their own, in that they push a genuine structure of perception (the heterogeneity of space) beyond the point where form breaks down.

Notes

1. Deleuze explicitly introduces the notion of transcendental illusion in relation to the logic of multiplicities in *Difference and Repetition*. For more on transcendental illusion, particularly in early Deleuze, see Somers-Hall 2009.
2. In this respect, the logic of the smooth and the striated recalls one of Deleuze's earliest philosophical analyses – his reading of Bergson in his early essay on Bergson's conception of difference. Here, Deleuze notes that while matter and duration exhibit two tendencies which differ in kind for Bergson, this differing in kind is one that takes place *within duration itself*. Deleuze puts the point as follows: 'Duration differs from matter, but it does so because it is first that which differs in itself and from itself, with the result that the matter from which it differs is still essentially of duration. As long as we remain within dualism, the thing is where two movements meet: duration, which by itself has no degrees, encounters matter as a contrary movement, as a certain obstacle, a certain impurity that mixes it up, that interrupts its impulse [*elan*], that gives it such and such a degree here, another one over there. But more profoundly, duration is in itself susceptible to degrees because it is that which differs with itself, so that every thing is entirely defined in duration, including matter itself' (Deleuze 2004a: 27). This same logic is still at play in Deleuze and Guattari's characterisation of smooth and striated space, with the smooth as that which differs from itself, and therefore provides the principle of the striated.
3. This criticism is raised by Bergson at several points in his writings. An indicative point would be Bergson 1910: 112–17, where he points out that the same assumptions that lead to the Eleatic paradoxes around motion are necessary conditions for the formulation of modern mechanics.
4. Once again, the notion that life must be conceived of as open can be traced back to Bergson, in this case to *Creative Evolution*. See Ansell Pearson 1999: 168–70 for an account of how this move away from the closed organism to what Deleuze and Guattari call 'machinic heterogenesis' is developed. See also Somers-Hall 2013b for an analysis of Deleuze and Guattari's criticism of the classical account of the organism.

5. Deleuze discusses this in detail in chapter 5 of Deleuze 1994, where he introduces the concept of a 'transcendental physical illusion' (228).
6. For more on the intensive in Deleuze, see Clisby 2015; Mader 2014; Somers-Hall 2013a: 30–5, 174–80.