

# Restless Innovation

**Mapping the ontogenetic opportunities of creative change,  
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## **Abstract**

This paper will examine how innovation (the successful impacting of creativity) should respond to intellectual traditions outside of its normal purview, in order to keep the creative engine of its activities vibrant. Drawing mainly from philosophy, but revolving around a single sentence from Arjun Appadurai's 'Disjuncture and Difference in the Global Cultural Economy' – in which he asks refugees “not to let their imaginations rest too long” – this paper will argue for a theory and practice of innovation to be ‘restless’. A ‘restless’ innovation will have a number of particular characteristics, and this paper will note especially those that relate to its space. Not simply because the refugee noted by Appadurai is determined as such by its relation to space, but also because innovation will be determined by the spaces it creates and by which it is created. A ‘restless innovation’ will therefore be one that is topologically complex and ontogenic.

**Keywords:** Appadurai, cartography, Deleuze and Guattari, innovation, ontogenesis, space

“any innovation presupposes an environment which is favourable towards it.”

Madeline Akrich, Michel Callon and Bruno Latour

## **Introduction**

Anthropologist Arjun Appadurai has written much in recent years regarding the material and human realities both affected and caused by the contemporary globalised economy (for example: Appadurai 1996, 2001, 2002, 2004). There is, of course, much involved in his work, but I would like to draw attention to one sentence from one of these articles, because in this sentence is highlighted some of the key issues facing innovation. In 'Disjuncture and Difference in the Global Cultural Economy' he writes: “And as international capital shifts its needs, as production and technology generate different needs, as nation-states shift their policies on refugee populations, these moving groups can never afford to let their imaginations rest too long, even if they wished to” (Appadurai 2001: 32). Here he attests to the relationship between the dynamics of capital and technology, politics at local and global levels (and the mutual influence of either on the other), and the fluidity of human groups and the ability (or otherwise) of these human groups to enact or express imagination. The following paper will focus on the last of these: human fluidity and imagination. While the issue of refugees is not the focus of this paper, neither is the refugee merely a metaphor. With conflict displacing many thousands of people, with economic

drives forcing the relocation of many thousands more, with shifting patterns of agonism changing spaces around even those left behind, movement out of rest seems a dominant theme at many levels of actual existence.<sup>1</sup> When viewing innovation as an act and process of change set within a context of successfully impacting creativity, many of the issues that affect Appadurai's refugee do so also in innovation, albeit under different regimes of power and control, and with different material expressions.

Appadurai's words tell us that opportunity for agency and the adoption of a subject position as a locus of control and power in a dynamic, shifting and interconnected world come through acts of dynamic imagination. And that the processes and acts of a creative imagination, as well as the conditions for the possibility of such, are an important aspect of life for those displaced from their normal contexts; especially when these contexts are also in flux.

In a context governed by permanent change, then, there are two possible responses: dig in and fortify the boundaries of identity by urging all creativity towards order; or, bend with the movement and keep going, keep becoming. I would like to argue that a world where we are dislocated on many levels offers opportunities for ontogenic creative development that are not necessarily that of identity formation. I will argue that innovation, as a process of creative change, should operate according to Appadurai's principle for refugees. This is not to position them as equivalents, nor as metaphors for each other; but to show that their drives or demands for creative development transcendently align along principles of becoming. This concept of becoming, then, needs a little unpacking here.

A simplistic account of the history of philosophy ranges ontology in two opposing camps: Being (identity and stasis) versus becoming (change). It is, of course, more complex than that. Most interestingly becoming is posited as the state of Being. That is, any Being is only insofar as it is in a process of coming about: existence is always a process of delivering itself. Alfred North Whitehead explains: "That *how* an actual entity *becomes* constitutes *what* the actual entity *is*; so that the two descriptions of an actual entity are not independent. Its 'being' is constituted by its 'becoming.' This is the principle of process" (1978: 23; original emphases).<sup>2</sup> Being is always on its way. To capture this Deleuze and Guattari (1987), for example, borrow from biology the concept of ontogenesis: the creative becoming of being.<sup>3</sup> In becoming imaginatively restless, Appadurai is asking refugees to promote their ontogenesis.

But as power centres shift with the changing values of resources, manufacturing capabilities and capital clout, it is not only those forced to uproot as refugees who must imagine new ways of acting in this world, who must become. Those who are left behind in spaces made comfortable by centuries of economic, industrial, technological, social and cultural development and success, but for whom changes in global power relations has made life uncomfortable (at best) and dangerous (at worst), need also to reimagine their place and role in the world. Any resident of a 'company' town undergoing loss of that company's employment will have experienced this. The creative imperative for ontogenetic re/imaging can hold as strongly for the sedentary as for the refugee. For the stickiness of the comfortable, structured, striated and hierarchised space and time is

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<sup>1</sup> The essay by Verburgt (2012), 'A Plea for Technological Activism at the European Borders' is an excellent philosophical and political account of migrants who, while not equivalent to refugees, encounter similar problems.

<sup>2</sup> See also Bennett (2010) and Connolly (2011) for elucidations of the same issues from political science perspectives.

difficult to dissolve; being stuck when surroundings change can be as disruptive to those left behind as being forced to move somewhere unfamiliar. Appadurai's demand of refugees could be reworked to say that when the dominant paradigm shifts, the sedentary and the refugee both must renegotiate their creative and imaginative expressions.<sup>4</sup> How then is this relevant to innovation?

While the concept of success serves to differentiate innovation from pure creativity (Flynn and Chatman 2004; Cox 2005), it has also been shown to lead to market failure (Christensen 1997) and cultural inertia (Johnson 2001; Tushman and O'Reilly 2004). While innovation-thinking places exploitative acts (those that develop on past success and/or current resource bases incrementally) in opposition to exploratory ones (those that are experimental, pushing into territories unknown to develop radical opportunities), Tushman and O'Reilly (2004) acknowledge the value of innovation that mixes these opposing strategies: for organisations to develop the capacity to engage in both exploitative and exploratory innovation. The complexity of the situation in which innovation finds itself (Simon 1962; Brassett 2013, 2015) demands its own constant innovation: its imagination should not rest and its organisation always becoming.

In the following, I will examine innovation that has been pushed from the comfortable spaces of past success into the seemingly chaotic realms of the new. First I will consider, philosophically, the nature of a relationship with the earth as a first act in re-strategising an imaginative, restless innovation. Then follow by examining the concept of cartography as a creative act of ontogenetic resistance, before finishing by returning these concerns to innovation.

## Strategies and Milieus

So far I have been discussing the dynamic reimagining that is necessary in paradigms that are in constant shift. It would be worth drawing attention to the strategic issue announced here, for Appadurai's words indicate a meta-level requirement to address the relations and conditions according to which refugees should be constantly reimagining themselves. The relations between policy, strategy and tactics may have their hierarchical configuration (von Clausewitz 1834), but these merit reconsidering in favour of something more spread out and heterogeneous. In 'Lucretius: Science and Religion' (1982) Michel Serres writes: "Strategy is not only a form of dynamics or energetics but first of all a topology" (103). Serres expert David Webb explains: "the topological account describes a complex space determined by the material combinations in question" (2006: 130). While topology has been used in more mathematically oriented innovation design disciplines (especially mechanical engineering; see, for example, Takezawa, et al. 2010; Editorial Board 2013: 26), its wider use across other creative and cultural disciplines has been only more recently evident. The best example is that of a recent special edition of *Theory, Culture and Society* (Lury et al. 2012). There is much the editors offer in their editorial introduction,<sup>5</sup> but for the purposes of this paper the following is of note:

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<sup>3</sup> Another key thinker dealing with the same concept is Gilbert Simondon, to whom Deleuze refers greatly in his own work. See especially Simondon 1989.

<sup>4</sup> Such considerations are not only relevant for subjects. For if we think of agency as the singular, successful impacting upon one's context, then these words must also resonate for disciplines, semiotic regimes, organisations, objects and the complex arrangements that their intermingling with subjects can create.

<sup>5</sup> Including referencing Appadurai (2001) as one of the streams of thought developing the importance of a topology of culture, especially as an example of Deleuze and Guattari's concepts of de- and reterritorialisation (Lury et al. 2012: 5). I have also examined the pragmatic and complex consequences of a material space: Brassett (1992, 1994).

culture is increasingly organized in terms of its capacities for change: tendencies for innovation, for inclusion and exclusion, for expression, emerge in culture as a field of connectedness, that is, of ordering by means of continuity, and not as a structure based on essential properties, such as archetypes, values or norms, or regional location. (Lury et al. 2012: 5)

As the topologically complex, materially folded and interleaved, impacted and dissected stuff of culture comes to the fore, its combinatory possibilities express into areas of increased creative innovation (De Landa 2006; Webb 2006; Brassett 2013, 2015). Lury et al.'s words can be creatively disrupted here further by highlighting – as Chia (1998), Tsoukas (1998) and Tsoukas and Chia (2002) advise – that organisation is not impacted upon by change, but something that emerges from change, and that its “capacities for change” articulate the ways in which it blocks, sets free, diverts or follows the ontogenetic flows upon which it is constituted. An organisation's mode of being will depend upon the becomings it produces: processes materialising space and time (Brassett 1992) as creative events (Massumi 2011). Manuel De Landa writes that an “important deterritorialising factor affecting [networks and hierarchies] is a turbulent environment, such as that created by a *high rate of innovation* in products or processes” (2006: 82–3; original emphasis). De Landa is correct here in showing that innovation makes turbulent the environment to which it contributes, which then disrupts the ways in which organisations coalesce. What I would like to emphasise is that the environment itself is constructed by the organisational operations and consequences of innovation that traverse it. This is the concept of the creative immanence of *milieu* as discussed by Deleuze (1998) – following Canguilhem (1952; see also O'Reilly 2015).

For Deleuze, a milieu “is made up of qualities, substance, powers, and events” (1998: 61). It is the space and the medium in which everything is already in the middle.<sup>6</sup> Further, as Canguilhem states, “The individuality of the living does not come to an end at its ectodermal boundaries, no more than it begins at the level of the cell” (2001: 19). The milieu within which all life exists (including nonorganic life: De Landa 1992; Bennett 2010) creates opportunities for life to change, which affect the milieu, leading life to evolve further, and so on. For Deleuze the “trajectories” taken in such milieus not only explore them and map them but constitute them too. “The trajectory merges not only with the subjectivity of those who travel through a milieu, but also with the subjectivity of the milieu itself, insofar as it reflected in those who travel through it” (Deleuze 1998: 61). The creative act of mapping, the exploratory act of taking an aimless trajectory, the living thing engaging in these activities, become each other and the milieu in question. The imaginative, creative agency production of the de- and reterritorialised refugee of Appadurai, and the immanence of milieu and living of Deleuze-Canguilhem, impact each other.

Every tactical act within a space expressing any strategy will change the nature of the milieu within which we are working. As mentioned, any plane of action is immanent to the acts that take place upon it, the nature of the plane itself, the actors within this space and the complexity of relationships between them all. To tweak any one of them will make the whole shift, such that the milieu, the material and the dynamics resulting from the interplay of tactics, strategy and policy, and the conditions according to which any of these are brought into being, emerge together. At

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<sup>6</sup> The French term encompasses all of these meanings as Brian Massumi, translator of Deleuze and Guattari's *A Thousand Plateaus* explains in his notes (Deleuze and Guattari 1987: xvii).

any instantiation of strategy (and therefore policy) new strategies (if not new policies) will need to be designed to ensure future success. Appadurai's refugees are not only ontologically (re)configured as a result of the policies of others, but must develop their own strategies, tactics and conditions for existing too: at the very least, not to let their imaginations rest. Such 'never resting' will also be topological. This is an important consideration, as the materiality of the ontological disruption, the creative reimagining that it necessitates and the relation of all these to the milieus in which they occur are all creatively intertwined. I will draw out next how this all relates to mapping.

A complex nexus of constitutive activities links how and what we become, the spaces that support (or deny) this becoming, the conceptual conditions according to which these all act, and the plans that we make to get things done. This not only seems to summarise well the work of innovation managers, but also gets to the heart of Deleuze and Guattari's work in so many ways and on so many different levels. First we encounter the aspects of their work that deal with ontogenesis. Secondly, we find here concepts of space, territory, deterritorialisation and reterritorialisation, and mapping/cartography in their creative co-mingling.<sup>7</sup> The first of these has been mentioned above and focus now turns to the second, which will be examined by relating the discourses of innovation to capitalism, as these come through strongly both in the work of Appadurai, Deleuze and Guattari.

## **Cartography and Capitalism**

Past success will not suffice in ensuring future innovation in a radically altered global economic context even though success is an integral part of the definition of innovation. Indeed, past success can be particularly damaging in that the familiar and comforting milieu it constructs can serve as an attractor for future innovation activities, driving activities in closed, entropic spirals. Old orders, processes and meanings need creative reassessing to ensure the very possibility of future success. And because stagnation increases when a creative approach to the paradigm within which one was so dominant has diminished, the promotion of the conditions for creativity, as well as the outputs of its processes, will need to be ever dynamic in order to guard against such stagnation (Brassett 2015). Notwithstanding homogenisation forced by naming the 'refugee', one is displaced for a complex variety of causes, some emergent. The becoming toxic of a milieu is one that has multiple trajectories of becoming. This is one reason why a complex topology is necessary: there are no easily identifiable linear causes for any action.

So much in Deleuze and Guattari's work regards space that it is difficult to see that they are interested in anything else. Not only are large parts of their first two 'Capitalism and Schizophrenia' volumes devoted to the topic – the discussion of territorialisation, deterritorialisation and reterritorialisation in *Anti-Œdipus* (1984); whole sections on smooth and striated space and the importance of cartography and the map in *A Thousand Plateaus* (1987) – but they also provide a section on 'Geophilosophy' in *What is Philosophy?* (1994) stressing the importance of a materially spatial pragmatic philosophy. There are many ways in which these concepts and their ways of being thought are relevant to this paper, and I will focus on a few. In *Anti-Œdipus* (1984), Deleuze and Guattari introduce the operations of territorialisation, deterritorialisation, reterritorialisation: flows taking lines of flight or folding back onto well-

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<sup>7</sup> Another issue in Deleuze and Guattari (1987) announced by this related set of concepts, the relation between the nomad and sedentary, is worth further examination in the terms of this current paper.

wrought structures of control and power articulated as *machinic* functions. These operations create complex assemblages for the connection, distribution or disruption of flows. And these assemblages are at once the product of these operations, and their producer: constitutive of the space that drives the possibilities for their construction. So the territorial machine emerges from the acts of territorialisation at the same time as it drives such acts. This is why Deleuze and Guattari also write of assemblages, the flows and their operators together as a plane of immanence: as the materialities of the flows forming the plane and the conditions by which they are constituted are mutually constructed. In *What is Philosophy?* (1994) Deleuze and Guattari place these machinic, immanent acts at the boundary between order and chaos. Any creative act forges its milieu, this plane of immanence, by drawing the energetic forces of chaos towards the consistent forces of order. The machinic assemblages that are constructed in these creative spaces can be fashioned in a multitude of ways, but one way that Deleuze and Guattari focus upon throughout their work is capitalism's construct, the Capitalist Machine.

In creating itself the Capitalist Machine determines the nature of the energies and matter that pass through, constitute and are produced by it: thus it produces Capital. One of the defining characteristics of Deleuze and Guattari's work is the machine: desiring machines, machinic assemblages, miraculating machines, paranoiac machines (and more) abound. It is a point of importance for them to say that these are not metaphorical machines. Any time any thing is connected to anything else, they say, allowing flows to pass, or be blocked, a machine is built. Machines connect, coagulate, flow, dam and anything that does these things is a machine. Capitalism, too, becomes a Capitalist Machine. It constructs itself around these flows, diverts and blocks, accelerates and retards them in order to generate surplus value, excess, growth and profit. As the Capitalist Machine accesses these flows it identifies them as Capital. The immanence that has been identified in this piece with becomings in/of milieus is evident here too. At the same time as the Capitalist Machine needs access to the speedy flows of Capital – even accelerating them – it is wary of the excess generated and the means of its generation, as these are dangerous. The determinants and constituents of capitalism's growth have the opportunity to destroy it. It is important that the Capitalist Machine regulates these dangerous elements by using any functions of power, organisation and control that exist: school, police, The State, hospitals, and so on. It is "poised" between the energy of chaos and the rigidities of control in the creative space necessary to generate the new (Brassett 2015). In Deleuze and Guattari's terms while the Capitalist Machine deterritorialises to find places, things and people to exploit, it needs also to reterritorialise to stop these loosened flows dissolving the whole construct. It decodes and overcodes and creates everything as Capital.

Appadurai's refugees are the result of such machinic operations: "international capital", "production and technology", the policies of "nation states" all combine to displace people and/or their milieus. Flows overcoded as Capital, processes of creation put to work; reterritorialised functions and symbols of state and identity; all operate on people and milieus to produce enough movement to extract surplus value for growth, and enough order to control and organise. But those affected by the Capitalist Machine must not let their imaginations rest too long. Assemblages of imaginative creativity promote the opportunities for self-proliferation energised by the same acts of deterritorialising engaged by the Capitalist Machine. A restless imagination promotes the production of ways of unpicking the modes of control enacted by the Capitalist Machine. Elsewhere in Deleuze and Guattari's work, this same activity of reimagination, of unpicking the codings and overcodings, de- and recodings of machines is called "cartography"

(Deleuze and Guattari 1987; Guattari 1989a, 1989b). In terms familiar from use in this piece, a material topology that is alive to its contextual contingency is a mapping. The plan, the plane and planning come together as strategy here. Thus it is important to consider what a cartography of disrupted and disrupting flows, of the lines of flight exploding from the capitalist overcoding of capital might be, in order to flesh out the actualities of a dynamic creative reimagining. This is because, for Deleuze and Guattari, mapping is an act of creative resistance.

The principle of cartography is one of six principles of rhizomatic writing that Deleuze and Guattari propose in the introduction of *A Thousand Plateaus* (1987).<sup>8</sup> Cartography is a dynamic and responsive act, and one that is also materially creative: it constructs through its mapping. The map does not reproduce, it does not imitate; the map does not outline. The map neither identifies nor subjectifies, neither signifies nor hierarchises. It charts; and constructs the field it covers as it charts. The map

fosters connections between fields [ . . . ] The map is open and connectible in all of its dimensions; it is detachable, reversible susceptible to constant modification. It can be torn, reversed, adapted to any kind of mounting, reworked by any individual, group or social formation. It can be drawn on a wall, conceived as a work of art, constructed as a political action or as a mediation. (Deleuze and Guattari 1987: 12)

The principle of cartography is one that allows for such maps to come into being. They are “open and connectible” and so maximise the possibilities and opportunities for being open and connectible. Their possibility, tendency, intension and expression come together. They are immanent. This is an important point. If the displaced and the disrupted are asked to ensure that their imaginations do not rest, they are being asked to be “open and connectible”, “susceptible to constant modification”. Refugees must map. Deleuze and Guattari’s mapping is one that finds blockages to their voyage, as well as paths to take for creative maximisation (including seeking safety). To be ontologically dynamic, restless, is to map as an act of topological strategising; at the same time as an innovative strategy development is a dynamic, complex, topological mapping.

An important issue to consider here is the role of borders. In the topology edition of *Theory, Culture and Society* referred to above, Sandro Mezzadra and Brett Neilson examine space and borders. They write:

No matter how much topology draws our attention to unexpected forms of connection and continuity, it must also account for processes of partition, filtering and hierarchization. The image of topological space has been particularly useful for grasping some of the characteristics of the so-called space of flows associated with globalization as well as with neoliberal social milieus reshaped by market rationality [ . . . ] Our analysis points also to the usefulness of topology for understanding the mobility and elusiveness of spatial formations within geographies of globalization that are marked as much by differentiation as by connection. (Mezzadra and Neilson 2012: 59)

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<sup>8</sup> Together these are: 1 and 2, principles of connection and heterogeneity; 3 principle of multiplicity; 4 principle of asignifying rupture; 5 and 6, principles of cartography and decalcomania (Deleuze and Guattari 1987: 7-12).

The border as blockage or marker of a point of differentiation, for them, is as important a site for investigating cultural complexity as the opening of a flow. Their analysis shows the importance of disjunction and expulsion to a topological mapping of culture, to add to the foregrounding of connection and continuity. The refugee announces many such processes in its very name: territories of belonging and rejection; deterritorialities of fixed and porous borders; reterritorialisations upon self and other. The refugee and the recontextualised have been affected by the machinations of capitalism at their most oppressive, blocking and redirecting flows that have been most creative at their deterritorialised limits. Such reterritorialisations are able to be unblocked, their constitutive energies redirected and new lines of flight followed. Restless imagination entails this. It is mapping and ontogenesis.

Of course, a map is not just a map. A map is not simply a fact, but an expression of intensities, values and possibilities for connecting, or disconnecting, that relates both to an act of mapping and the thing produced. "Maps," Deleuze writes, "should not be understood only in extension, in relation to a space constituted by trajectories. There are also maps of intensity, that are concerned with what fills space, what subtends the trajectory" (1998: 64). Any map is a momentary material snapshot of an on-going intense relationship with the Earth, Objects, Subjects and so on, which will be expressed by one's (individual and organisational) topological attitude. It does not start anywhere, because it is always happening. It always will have happened. And it is here that we must bring all these thoughts back to the questions of innovation.

### **Final remarks: towards a restless innovation**

Mapping "fosters connections" and also "removes blockages", "maximises openings", detaches, reverses, reworks and activates (Deleuze and Guattari 1987: 12). Furthermore, such an imaginatively dynamic cartography also powers the topological aspect of strategy, as noted by Serres earlier. In this sense, any innovative strategy must also engage with its spatial context topologically or cartographically: opening, connecting and constantly reimagining itself in an interminable ontogenic act.

At the start of this paper, I mentioned the issue of "success" as the factor distinguishing innovation from mere creativity. Creativity is not a sufficient cause for innovation, but it is a necessary one. It serves, as this paper closes, then to open the discussion onto creativity as such. Already, via Appadurai's exhortation to the refugee, we have encountered a context in which creativity is also necessary. For him the complex intercrossing of meso-level policy directives, macro/global capital flows, and micro-level personal/local immediate wants and needs, determine with other contextual factors an array of conditions into which refugees find themselves pushed. That their imaginations should not rest attests to a need to align their possibilities for becoming to other modes of socio-political action. In 'Control and Becoming' (1995a) and 'Postscript on Control Societies' (1995b) Deleuze deals with similar issues.<sup>9</sup> As if a gloss on Appadurai's sentence, Deleuze says, "Men's only hope lies in a revolutionary becoming: the only way of casting off their shame or responding to what's intolerable" (1995a: 171). A "revolutionary becoming" is radically to create something new – radical innovation in other words. A few lines later he adds: "A people is always a creative minority, and remains one even when it acquires a majority: it can be both at once because *the two things aren't lived out in the same place*" (1995a: 173-4; emphasis added). The milieu productive of a people – that provides the medium a people

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<sup>9</sup> As well as in his work with Guattari dealing with 'Capitalism and Schizophrenia' already discussed: Deleuze and Guattari (1984, 1987).



uses to construct itself, which is its space, and within which it finds itself always in the middle – this milieu is also the grounds for its creativity and its ontogenetic dynamism. The milieu allows opposition or belonging, major or minor, stagnation or fruition; and all of these at once, and everything else in-between. The creative milieu of becoming is topologically complex, and ontogenetically rich. Refugees and the recontextualised sedentary must restlessly imagine their possibilities there. These are all the conditions for and expressions of creativity. The conditions for the possibility for innovation are the same. This is not to say that innovation and refugees are equivalents, but that their topological contexts for creativity are transcendently aligned. Innovation also must not let its “imagination rest”. The milieu of innovation also contains the principles for its expression: success and creativity. But because of the immanence of the constituting of and by the milieu, any material instantiation of these principles swerves them in different directions. This is the value of considering the complex topology of all this as milieu, as I discussed above. One step towards an innovation that seeks to self-innovate is to ensure that it occupies a complex milieu in which its ontological opportunities are always becoming.

There is work in organisational studies that takes similar trajectories to those in this paper, in bringing Deleuze and Guattari (Cooper 1986; Cooper and Burrell 1988; Chia 1999) or complexity theory (Chia 1999; Tsoukas 1998; Tsoukas and Chia 2002) to thinking about their work. Innovation theory has encountered complexity but in much more technological or engineering-focused contexts (for example, Frenken 2006; Valverde et al. 2007). The work I present here is one possibility for thinking about innovation and its management. Management is an issue because without it, there is no innovation. Such an innovation management has to be at once strategic and future-oriented. That is, it must have a complex topological engagement with innovation’s milieu, which will determine the configuration of the material and expressive resources at hand (De Landa 2006). In conjunction with an attitude to the future, as any change proposed will impact the expressions of time that any milieu allows (Brassett 1994). This has been articulated above in terms of ontogenesis and becoming, such that any creative act impacts the possibilities and opportunities for its own creativity. Innovation it has been posited here must do the same, as the organisational and management scholars referenced at the start of this paragraph attest. It should be noted here that these considerations of strategy and foresight insofar as they address mapping spaces, connections, resources, matter, time and ontology must also be concerned with ethics and politics. If the creative aspects of innovation access the thoughts and practices discussed already; the ethical and political aspects of its management must concern itself with how things, people, systems and so on impact each other, and the modes of existence these allow or disavow. We are back, then, to Appadurai. The material, ontological, creative, ethical and political demands made by change, movement and disruption should at least be not to let our imaginations rest. Everything else follows.

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