



Delft University of Technology

**Generalised chromaticism  
the ecologisation of Architecture**

Radman, A.

**DOI**

[10.1080/13602365.2022.2122070](https://doi.org/10.1080/13602365.2022.2122070)

**Publication date**

2022

**Document Version**

Final published version

**Published in**

The Journal of Architecture

**Citation (APA)**

Radman, A. (2022). Generalised chromaticism: the ecologisation of Architecture. *The Journal of Architecture*, 27(4), 517-538. <https://doi.org/10.1080/13602365.2022.2122070>

**Important note**

To cite this publication, please use the final published version (if applicable).  
Please check the document version above.

**Copyright**

Other than for strictly personal use, it is not permitted to download, forward or distribute the text or part of it, without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license such as Creative Commons.

**Takedown policy**

Please contact us and provide details if you believe this document breaches copyrights.  
We will remove access to the work immediately and investigate your claim.



# The Journal of Architecture

ISSN: (Print) (Online) Journal homepage: <https://www.tandfonline.com/loi/rjar20>

## Generalised chromaticism: the ecologisation of architecture

Andrej Radman

To cite this article: Andrej Radman (2022): Generalised chromaticism: the ecologisation of architecture, The Journal of Architecture, DOI: [10.1080/13602365.2022.2122070](https://doi.org/10.1080/13602365.2022.2122070)

To link to this article: <https://doi.org/10.1080/13602365.2022.2122070>



© 2022 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group



Published online: 26 Sep 2022.



Submit your article to this journal [↗](#)



View related articles [↗](#)



View Crossmark data [↗](#)

# Generalised chromaticism: the ecologisation of architecture

This tripartite article is devoted to the role of architectural heritage in the process of exo-somatization or evolution by means other than life. The first part entitled 'Politics of Location' will provide a brief history of the Architecture Philosophy and Theory Group at Delft University of Technology (TU Delft) to situate my position following the lesson of Donna Haraway's 'situated knowledges'.<sup>1</sup> The second part entitled 'Affects Before Subjects' addresses transdisciplinary architectural research and education, where I will make a case for the kind of learning that starts with 'leading out' (*educere*), in response to Claire Colebrook's proposition: 'The word "education" comes from the root *e* from *ex*, out, and *duco*, I lead. It means a leading out. [E]ducation is a leading out of what is already there in the pupil's soul'.<sup>2</sup> After a call to debunk stereotypes, I will turn to concrete evidence of the affordance theory in practice through meta-modelling in the third and last part entitled 'Two Compasses, One World'. In the words of Reza Negarestani: 'Conception without praxis is unrealised abstraction and praxis without conception is a hollow impression of concreteness'.<sup>3</sup>

**Andrej Radman** 

*Faculty of Architecture and the Built Environment  
Delft University of Technology  
The Netherlands  
a.radman@tudelft.nl*

ORCID [0000-0002-8914-1197](https://orcid.org/0000-0002-8914-1197)

## Introduction

It is as if the universe, in its creative advance, never ceases to create new constraints, which are the existents themselves, canalizing how they inherit what is possible, in a new way.<sup>4</sup>

Assemblages (or abstract machines) are about distinctiveness rather than similitude. It is the relational capacity of a body to affect (and be affected) that takes precedence over comparisons between bodies. This is ethology, as opposed to homology or analogy, in which it is the imbrication of relations rather than comparative mapping of forms or functions that matter.<sup>5</sup>

Education is precisely what enables intelligence to dissolve and recreate its own habits, to imagine the multiplicity of possibilities, to put knowledge to the test of action and thus to act independently from official norms.<sup>6</sup>

© 2022 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group  
This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (<http://creativecommons.org/licenses/by-nc-nd/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way.



This article is devoted to the exo-somatic evolution facilitated by architectural heritage and will shed some light on the role of theory.<sup>7</sup> More precisely, it will touch on the *praxis* of contemporary architectural theory and will therefore qualify as *artistic* research. Let me immediately assert that no art has ever been representational.<sup>8</sup> If anything, its purpose is to destroy representational platitudes. I would not dare or even care to conclusively define what architectural theory *is*. My interest lies in what it *does* and, more importantly, what it can still do. This reveals a pragmatist stance right from the get-go; it is called a 'generalised pragmatism'.

The aim of architectural theory is not to re-discover the eternal or universal, but to find the singular conditions under which new concepts or affects are produced. The 'plastic principle' from Gilles Deleuze's book on Friedrich Nietzsche stipulates that the condition is never bigger than the conditioned.<sup>9</sup> From a pragmatist perspective, architectural theory aims not at stating the conditions of knowledge qua representation (conditions of possibility), but at finding and fostering the *real* conditions of creative production. The secret is 'to bring into existence and not to judge';<sup>10</sup> or as Rosi Braidotti puts it: 'Don't agonise, organise!'<sup>11</sup> The problem with judgment is that it perpetuates the status quo and prevents the emergence of the new. Is it not the *epiphylogenetic* 'destiny'<sup>12</sup> of architectural heritage — whereby the organic becomes dependent on the non-organic — to perpetually *create* new boundary conditions and enabling constraints? Or, consequently, to bring into existence new modes of existence and forms of life — or in Yuk Hui's terms — new cosmotechnics?<sup>13</sup>

It is, of course, commendable that architecture as a profession should continuously offer viable solutions to the problems of reliability, affordability, and sustainability. Yet, the scope of 'urban metabolism' needs to be complemented by architecture as a discipline that is not merely solution-oriented, but instead excel at posing new problems that ultimately engender new ethological manners.<sup>14</sup> It is insufficient to account for life solely in terms of passive adaptation to the given external circumstances. Such a homeostatic conception deprives life of its most important dimension, namely 'metastability'.<sup>15</sup> A metastable milieu is always at the limit of equilibrium and disequilibrium. This is important because the fusion of *noesis* and *noema* would result in arrested development. While architecture as a regulated practice rests on the belief that it delivers the greatest good for most people by reducing difference, architecture as an academic field unleashes emancipatory potential by constructing new existential niches with unprecedented sets of affordances.<sup>16</sup> Therefore, architecture as a discipline can be seen to concern itself with *pure* heritage and in doing so catalyses cultural, social, and political expressions.<sup>17</sup> The attribute 'pure' underscores a leap into a virtual, not a historical, past. As such it constitutes an ontological, not chronological, move that this article addresses.

My unorthodox understanding of architectural heritage has to be defined at the outset. It is shorthand for mnemo-technology as the necessary condition for transindividuation, whereby the noetic and the vital are co-constitutive.<sup>18</sup> There can be no collective intelligence without the communal expression.<sup>19</sup> According to Gilbert Simondon, there are three modes of individuation: physical, vital,

and psycho-social.<sup>20</sup> Strictly speaking, only inanimate objects like crystals grow on the surface and remain indifferent to their interior. By contrast, all vital growth also draws on interiority, insofar as it continues to be influenced by its memory.<sup>21</sup> Furthermore, if we 'ascend' to the level of transindividuation, we can argue that paradoxically the future adopts the capacity to transform the past. Paraphrasing Henri Bergson, the pure past *is*, rather than *was*.<sup>22</sup> I thus propose to 'read' heritage in the symptomatological key, as irreducible to 'the present that it was, but also the present present which it could be'.<sup>23</sup>

Architecture is not an epiphenomenon of culture but the 'collective equipment' that challenges the instituted supply-demand logic by tapping into the virtual that engenders and is engendered by psycho-social individuation.<sup>24</sup> It is not meant to cater for the ready-made *need* alone, but to construct the unconscious (non-individual and non-human) *desire*.<sup>25</sup> Put succinctly, knowledge is not simply cognitive; rather, it presupposes the formation of social circuits of transindividuation through which a form of knowledge is constituted. As a matter of fact, transindividuation is only made possible by tertiary retentions constituted by the artificial organs of technics and mnemotechnics, or technicities in Simondon's parlance. Epiphylogenesis is thus perpetuated by what Georges Canguilhem calls the 'inconsistency of the environment', a ceaseless techno-logical disruption.<sup>26</sup> In contrast to the (neo)Darwinian mechanism of passive adaptation, the quasi-Lamarckian non-reactionary disposition is as cultural as it is natural. Technical innovation inevitably disrupts both our habitats and habits. Roger Barker provides a wonderful 'proof' of how architectural heritage as an exemplary exo-organ becomes instrumental in generating *sense* or non-totalising unities (directionalities) by linking psychic and collective individuations: 'The actions of an individual show greater variability across different locations in the environment than do actions of different individuals within the same location'.<sup>27</sup>

In other words, architectural technicity is 'the *posteriori* becoming a *priori*'.<sup>28</sup> According to Hui, memory is empirical, hence *posteriori*, but once it is recorded it becomes the condition of new experiences, hence a *priori*. In their notes on archaeology of design, Beatriz Colomina and Mark Wigley explain the significance of such exo-somatization:

What makes the human human is not inside the body or brain, or even inside the collective social body, but in our interdependency with artifacts. The human is suspended in a complex and continuous back and forth between itself and artifacts, a flickering that ultimately dissolves the distinction between them.<sup>29</sup>

Thus, the noetic (organic) brain is constituted through its relation to a memory that is dead (inorganic), as technologically spatialised temporal expression.<sup>30</sup> In the words of a fellow Gibsonian: 'Ask not what is inside your head, but what your head is inside of'.<sup>31</sup> Only thus may we grasp the entanglement of habits and habitats. Once the knowledge of individuation is tied to the individuation of knowledge, the opposition between subject and object dissolves insofar as the mode of knowledge and that which is known are no longer distinguishable *a priori*. In the words of Simondon:

We cannot *know individuation* in the ordinary sense of the term; we can only individuate, be individuated, and individuate within ourselves; this apprehension is therefore, in the margin of knowledge properly speaking, an analogy between two operations, an analogy that is a certain mode of communication. The individuation of the real, exterior to the subject, is grasped by the subject due to the analogical individuation of knowledge within the subject; but it is *through the individuation of knowledge* and not through knowledge alone that the individuation of non-subject being is grasped. Beings can be known through the knowledge of subject, but the individuation of beings can only be grasped through the individuation of the subject's knowledge.<sup>32</sup>

Precisely because thought proceeds transductively, it cannot be consistently formalised through the classical ego-logical principles of identity (non-contradiction) and the excluded middle.<sup>33</sup> We ought to start from the middle. By starting from the *milieu*, we hope to break the deadlock between the ostensible immediacy of the subject and the constitutive distance of the system, the critical and the clinical. Both the virtual and the actual are constituted in the course of a transductive relation, one which constitutes its terms so that neither precedes the other because they only exist in the relation. Bluntly put, we assume we know the real through objects, but the real itself is not an object: 'We know intensity only as already developed within an extensity, and as covered over by qualities'.<sup>34</sup> If the transductive operation is singular, i.e. its origin, course, and results cannot be subsumed under any universal concept, then the foundation of a sole logic of transduction will be impossible by definition. What we need to activate instead is a thinking that commits to an eco-logic by means of resisting the probable. Probabilistic theories that apply to stable (thermodynamic) systems simply cannot account for metastability or the '*capacity to traverse, animate, and structure a varied domain, increasingly varied and heterogeneous domains*'.<sup>35</sup> As we shall see, this is exactly why generalised chromaticism is invoked.

The concept of chromaticism ties together a host of seemingly disparate issues. According to Gilles Deleuze and Félix Guattari, what holds the assemblage together is its least territorialised part. What can be more deterritorialised than *chroma* (Greek for colour)?<sup>36</sup> 'Generalised chromaticism', also referred to as broadened, new, or strange chromaticism, was coined by Deleuze. According to Ronald Bogue it was used only several times, most frequently in *A Thousand Plateaus* and occasionally in *Superpositions*, *The Fold*, and a 1978 lecture.<sup>37</sup> Despite the scarcity of its usage, the concept may be seen as a fundamental element of aesthetics defined as a theory of sensation. Although it originally appeared in discussions of music, generalised chromaticism ultimately came to denote a practice of putting the components (of a given artistic medium) in continuous variation.<sup>38</sup> This is not variation for variation's sake.<sup>39</sup> The eco-logical point is that destratification might give rise to new re-stratifications or new distinctions.<sup>40</sup> The kindred concept of 'unlimited finity' serves as an important mereo-topological lesson: 'It would no longer involve raising to infinity or finitude but an unlimited finity, thereby evoking every situation of

force in which a finite number of components yields a practically unlimited diversity of combinations'.<sup>41</sup>

The transgenerational 'third memory' is not passed down by vertical *filia-tions*, but yielded through horizontal *alliances*. This is important if we accept that it is not the presence or absence of memory, but the degree of its detachment from the 'body proper', which determines complexity. Divorcing memory from the organic changes the conditions for further phylogenesis since the 'evolution by other means' is galvanised by technicised associated milieus. James Gibson expounded on the idea in the realm of ecological perception.<sup>42</sup> His theory of affordance as intrinsic coding, which takes no distinctions as final and makes no distinctions in advance, constitutes a major move against over-coding.<sup>43</sup> The overcode has been identified as the syndrome of 'baggy clothes that fit everyone'.<sup>44</sup> A code is to the ethical or ethological *norm* what an over-code is to the moral (transcendent) *law*.<sup>45</sup> Wassily Kandinsky's warning issued almost a century ago still holds true: '[The overcoding] formulas are like glue, or like a "fly paper" to which the careless fall prey'.<sup>46</sup>

### Politics of location

The first of three parts follows the injunctions laid out in the introduction. Its purpose is thus genealogical and could not be farther from the biographical. If the knowledge of individuation equals the individuation of knowledge, then one cannot but acknowledge one's own (more-or-less) contingent redundancies.<sup>47</sup> Lodging oneself in the 'machinic phylum' — flush with the world — makes one humble, but also audacious.<sup>48</sup> Humble because of the acknowledgement that experience first happens, as it were, without me; it is only afterwards that I am able to claim it as 'mine'. The subject becomes a by-product of impersonal pre-individual processes that both precede it and go beyond it. Audacious because of the non-foundationalist *constructivist* insight that a fact in nature has nothing to do with the logical derivation of concepts.<sup>49</sup> The problem with major (royal) architecture theories is not that they are too abstract but that they are not abstract enough. An ecologised architecture theory happily 'renounces any order of preference, any organisation in relation to goal, any signification'.<sup>50</sup> It qualifies as minor by renouncing the synoptic in favour of the synaptic.<sup>51</sup> In other words, I will not dwell on the badly posed (Socratic) question of 'What is architecture?', but approach the shared problem through the 'minor' — non-transcendent and not eternal — questions such as 'Which architecture?'; 'Where?'; 'When?'; 'How?'; 'For whom?'; and 'From which point of view?'.<sup>52</sup>

Despite its admirable academic reputation, the architecture school at TU Delft has not been immune to the neoliberal turn in education.<sup>52</sup> By latter I mean the process of accelerated managerialisation that Mark Fisher so disturbingly foreshadowed in his *Capitalist Realism* (2009) with a telling subtitle: *Is there no alternative?*<sup>53</sup> Joan Ockman confirmed these gloomy premonitions. The institutions for higher education are 'being profoundly reshaped by market forces, consumer values, globalisation, and digital media. Universities

are being restructured to run on the for-profit model of the business corporation'.<sup>54</sup>

The predecessor of the current TU Delft Architecture Philosophy and Theory Group — the Delft School of Design (DSD) — had a life span of no more than ten years, roughly coinciding with the first decade of the new millennium. It was a prolific time of numerous conferences and publications that carried the legacy of critical theory in (and of) architecture.<sup>55</sup> The DSD came to an end abruptly in the wake of the global crisis that coincided with a fire engulfing the school building in May 2008. As a temporary solution that eventually became permanent, the school moved from the Van der Broek and Bakema iconic brutalist tower of 1970s to an old neo-classicist building a few blocks away. The newly-appointed dean kept only a third of theory staff and thus contributed to what Bernard Stiegler identified as the third stage of 'proletarianisation', namely the loss of *savoirs théoriques*: 'Specifically after 2008, a state of generalised stupefaction seems to have arisen that accompanies this systemic *bêtise*, this functional stupidity.'<sup>56</sup> We were again faced with the difficult task of building a new (post-critical theory) legacy for ourselves.

The post-DSD research runs under the name of the Ecologies of Architecture (EoA), akin to Isabelle Stengers's 'ecology of practices'.<sup>57</sup> Its axiology stems from the mutual determination of *technicity* (reciprocity of subjects and their built surroundings) and *affect* (response-ability).<sup>58</sup> Driven by a discerning attitude to determinism, the EoA champions a different — non-linear and non-local — conception of causality that includes both the proximal causes and neo-finalist 'because's'. Its neo-materialist conception of materiality expands to include the real-yet-incorporeal domain of the virtual. The EoA thus adopts a minor tradition that challenges the logic of discreteness, or 'chunking',<sup>59</sup> in favour of continuum thinking, aka generalised chromaticism. It tests the viability of established canons to rise above vanity that the discipline of architecture uses to shield itself from the 'hazardous realities' of historical becoming. As such it offers a radical critique of hylomorphism as in imposition of form onto inert matter in favour of the relational ontogenetic thinking.

### **Affects before subjects**

What do I mean by 'ecology'? What I do not mean is 'greenwashing'. The concept needs to be denaturalised along the lines of Steven Shaviro's 'Twenty-Two Theses on Nature'.<sup>60</sup> Gökhan Kodalak and Sanford Kwinter concur, 'nature is both us and indifferent to "us" at the same time'.<sup>61</sup> Ecology is as much about caring for the environment as it is about the individuation of the mind and *socius* as the collective body. These are the three entangled ecologies of Guattari.<sup>62</sup> More recently, Erich Hörl has provided a helpful summary of the current Ecological Turn in his *General Ecology*.<sup>63</sup> Generalised ecology may be said to stand for 'non-entailment'. To remind the reader, entailment is simply another term for 'logical necessity'.<sup>64</sup> An entailment is a deduction or implication, something that follows logically from or is implied by something else. By contrast, eco-logic teaches us that no relation



is logically necessary: it is only contingently obligatory.<sup>65</sup> In other words, things may very well have happened otherwise.

Ecology is a cross-scale anti-reductionist approach *par excellence*. Call it culture, discipline, science, or just a style of thinking. What kind of reduction does it oppose? Reducing down and reducing up, which translates into bottom-up and top-down causation. It is micro- and macro-reductionism in Manuel DeLanda's terminology, or under- and over-mining in Graham Harman's neologisms.<sup>66</sup> The bifurcation maps onto Charles Percy Snow's 'two cultures': the hard sciences and soft (some prefer 'subtle') humanities.<sup>67</sup> Hard sciences are traditionally micro-reductionist. For them, the molecular scale of matter — atoms, molecules, strings, DNA, and most recently bits and neurons — is 'more real' than the macro 'illusions'. Conversely, humanities are traditionally macro-reductionist. For them, it is culture, ideology, society, and its institutions that are 'really real'. In contrast to both, the ecological ontology is flat.<sup>68</sup> It takes no side between building and dwelling, to echo the title of the latest book in Richard Sennett's trilogy.<sup>69</sup> It takes no side between the hard *ville* and soft ('spiritual') *cit *. The emphasis is on the copula — interiorities *and* exteriorities, Freud *and* Marx. Ultimately, Deleuze and Guattari claim, libidinal *and* political economy are one and the same: 'The unconscious itself is no more structural than personal, it does not symbolise any more than it imagines or represents; it engineers, it is machinic'.<sup>70</sup>

Ecology is shorthand for irreducible complexity and irreversible non-entailment. Better still, it is shorthand for 'agential realism'.<sup>71</sup> As argued in the introduction, it is a way of escaping the overcode, the despotism of transcendence:

The key error of Western thought has been transcendence. We begin from some term which is set against or outside life, such as the foundation of God, subjectivity or matter. [...] Transcendence is just that which we imagine lies outside (outside thought or outside perception). Immanence, however, has no outside and nothing other than itself. [...] Deleuze argues for the immanence of life. The power of creation does not lie outside the world like some separate and judging God; life itself is a process of creative power. [...] To think is not to represent life but to transform and act upon life.<sup>72</sup>

Ecologisation of architecture starts with the revelation that the whole is not of the (self-contained) parts, but alongside them.<sup>73</sup> The one and the multiple, as well as other false dichotomies, are not binaries as general abstractions. They are but divergent processual destinations, immanent limits. What I am describing is a zigzagging movement that forces us to rethink subjectivity, especially under the ingrained substantive conceptions. As argued in the previous part, 'the self does not undergo modifications, [as] it is itself a modification'.<sup>74</sup> The ontopower sustained by ubiquitous transversal processes is hetero-poietic and cannot be grasped by any one discipline alone. This has become blatantly evident in the course of the syndemic that started in 2020.<sup>75</sup> In his book *From Object to Experience* (2018), Harry Mallgrave asserts that interdisciplinarity is no longer an exception in research.<sup>76</sup> However, I prefer trans- to inter-disciplinarity. While *interdisciplinarity* operates under the pretence of near-absolute interchangeability (the capitalist principle of general equivalence without equal-

ity),<sup>77</sup> *trans*disciplinarity recognises the necessity of ‘trespassing’ disciplinary boundaries albeit from a situated point of view. It is what Haraway and Braiddotti call ‘situated knowledges’ and ‘politics of location’ respectively.<sup>78</sup>

Architecture research is a material-discursive<sup>79</sup> *trans*disciplinary practice that nurtures conjecture and speculation.<sup>80</sup> As such it does not operate through demonstrative *deduction* or ampliative *induction*, but through manipulative *abduction*. This ‘material inference’ presupposes active intervention into the causal fabric of reality, as opposed to detached interpretation:

Deduction does not produce any new idea, whereas induction produces very simple ideas. New ideas in science are due to abduction, a particular kind of non-deductive inference that involves the generation and evaluation of explanatory hypotheses.<sup>81</sup>

After a plea against the ‘transcendent’, or what William James calls the ‘unconditional’<sup>82</sup> and the advocacy of heuristics over hermeneutics, the second part continues with a pragmatist cry for immanent *mesopolitics*.<sup>83</sup> The constructivist signature of Stengers in the following quote from the Xenofeminist Manifesto is conspicuous. Let me unpack its proposition 0 × 17 in three steps:

Like engineers who must conceive of a total structure as well as the molecular parts from which it is constructed, XF emphasises the importance of the mesopolitical sphere against the limited effectiveness of local gestures, creation of autonomous zones, and sheer horizontalism, just as it stands against transcendent, or top-down impositions of values and norms.

Having refused to adopt both the micro- and macro-reductionist strategies, as the longstanding choice between the *facts* so dear to the pluralist empiricist tradition and the *principles* of the monist rationalist one, the collective effectively proclaims its neutrality to the false opposition between the one and the multiple:

The mesopolitical arena of xenofeminism’s universalist ambitions [...] comprehends itself as a mobile and intricate network of transits between these polarities. ‘Transits’ may be read as ‘relays’ in Stengerian parlance.<sup>84</sup> Curiously, where Joanna Zylińska, in her *Minimal Ethics for the Anthropocene*, advocates ‘the minimal injunction to think big’,<sup>85</sup> Laboria Cuboniks go further by resuscitating the ‘U-word’ that has practically been banned from contemporary discourse. Some would argue that lifting the embargo on ‘universality’ and ‘alienation’ became possible with the aberrant nuptials of ‘realism’ and ‘speculation’ a decade ago.<sup>86</sup> More recently, Benjamin Bratton added his voice in favour of not universal, but *planetary*, governance. In this he reproached both the Left and the Right who seemed to be united in their distrust of any collectively (self)-organised action.<sup>87</sup> The final sentence of proposition 0 × 17 reads as a timely remedy against the hangover of autonomy thesis in favour of the impure:<sup>88</sup>

As pragmatists, we invite contamination as a mutational driver between such frontiers.<sup>89</sup>

To embrace the concept of general chromaticism is to exchange the continuous modulation for the *a priori* mould.<sup>90</sup> In contrast to the resilient hylomorphic tradition in traditional architecture, the immanent Stoic principle of organisation — *spermatikos logos* — requires a different, experimental attitude involving a ‘partnership’ with matter.<sup>91</sup> In other words, form is not to be imposed

from the outside — by decree or architectural *plan* — but rather ‘teased out’ of the latent potentiality of the *plane* of immanence.<sup>92</sup> It is for this reason that I advocate the need for architectural speculation that pragmatically refocuses on discovering new emancipatory potential in present conditions.

It is necessary to start from the middle or ‘bad new things’, instead of the ‘good old times’ or ‘better (utopian) futures’. If the presence of constraints entails the absence of certain potential states, we ought to be referring to ‘futuraity’ rather than *the* future. In other words, futurity is a condition of the present. It is anti-utopianism *tout court* defined by the inseparability of the event from its environment. This ‘memory of the future’, or what Kwinter named ‘radical anamnesis’, cares not only about what happened but what could have been otherwise, ‘a future that the past could not think and that the present — alone — dares not’.<sup>93</sup> This is how Malabou underscores what we refer to as psycho-social individuation:

Originally, becoming is metabolism. This means that the work of intelligence — revealing connections, the ability to reduce the indeterminacy or uncertainty of a situation, the interpretation of signs, the practical resolution of problems — derives just as much from the initiative of the organism in its interactions with its environment as from intellectual dispositions.<sup>94</sup>

In contrast to the messianic ego-logic of discreteness (being-individual) and its anthropocentric and hylomorphic propensity, the neomaterialist relational ecology of continuity (being-relation) rejects the exclusive alternative between subjectivism and objectivism.<sup>95</sup> While the tradition of hermeneutics attaches the work to the *subject* and structuralism localises the effectivity of *objective* structuration in the work itself, the ecological modulation as generalised chromaticism is the operation of the real — a material-discursive heuristics whereby the dichotomy of form and matter gives way to the continuous modulation involving forces and materials. To research artistically is to put conjecture before judgement, rhizome before reason:

The subordination of form to speed, to variation in speed, the subordination of the subject to intensity or, to the intensive variation of affects: these are, it seems to us, two essential goals to achieve in the arts. [...] Affects and no subject, velocities and no form.<sup>96</sup>

What about the third key word from Martin Heidegger’s *Building, Dwelling, Thinking* (1951)?<sup>97</sup> For the pragmatist, thinking does not consist in the evaluation of truth claims or application of ready-made concepts. To think is to experiment and to experiment is to destratify. Thought cannot pull itself up like Baron Munchausen did by his own hair. The sensible is what compels thought. In contrast to the detached interpretation as in code-breaking, thought as an encounter with the sensible is about hands-on intervention. What galvanises thought is a violent corporeal empirical encounter. We cannot *decide* to think differently because that would be to put the cart of ego-centric voluntarism before the horse of eco-logical perspectivism of desire.<sup>98</sup> To think differently, we have to *feel* differently. Nietzsche was right,

the real mystery is the body: 'Perhaps the body is the only factor in all spiritual development'.<sup>99</sup> This insight is not lost on Kwinter:

To understand who we are is to understand the conditions in the external world that produced us, the pressures that made us who we are and which endowed us with our capacities for sensing the universe and shaping and producing knowledge which is really what [architects] ultimately do.<sup>100</sup>

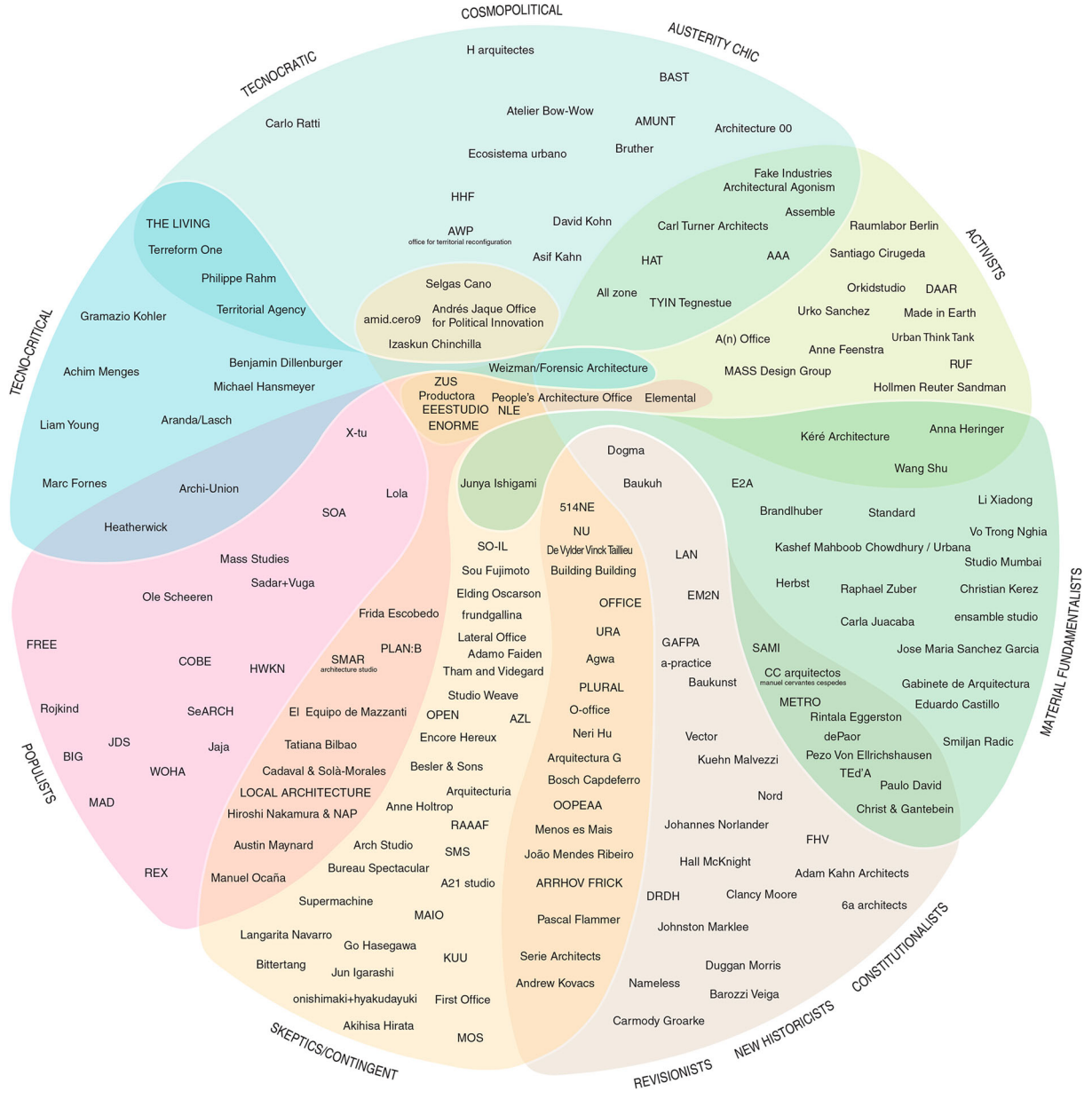
### **Two compasses, one world**

The proof of the pudding is in the eating. The final part of the article offers a concrete example of artistic research in the domain of architectural heritage. In the article 'Well into the twenty-first Century', Alejandro Zaera-Polo expresses his hope that the map he produced with Guillermo Fernández-Abascal would 'initiate a multiplicity of alternative maps and positioning which will help us to elucidate this re-engagement with politics of architectural practice'.<sup>101</sup> In April 2018 Stavros Kousoulas and I curated an exhibition at TU Delft under the name of 'Architectural Collective Enunciation: A Question of Forming Relays', featuring eight diagrams.<sup>102</sup> One of them is presented here in response to the challenge posed by the '2016 Global Architecture Political Compass'. I shall thus contrast two diagrams: Zaera-Polo and Fernández-Abascal's compass inspired by Charles Jencks's (in)famous diagram from *Architecture 2000*;<sup>103</sup> and our own compass inspired by Guattari's *Schizoanalytic Cartographies*.<sup>104</sup>

The authors of the first compass were explicit about their goals. In opposition to Jencks's diachronic scope, they set out to make a synchronic map of contemporary emerging architectural practices, with a conviction that the historical lineages were less pertinent than the relational ecology of positions in what they call 'postpost-political framing'.<sup>105</sup> Furthermore, and in a more radical tenor, they propose to detach the political positions from their lineages or historical purposes to become *aesthetic* positions. We find such an approach most compelling. However, this timely tracing of the lay of architectural land stops short of 'radical anamnesis'. It gives us the state of play, but does not yield any new positions as such. It is for this purpose that we complement Zaera-Polo and Fernández-Abascal's 'plan of imminence' with our 'plane of immanence'. Famously, for Deleuze and Guattari 'the plane of organisation' is the *actual* arrangement of elements in empirically describable and historically determined configurations, while 'the plane of consistency' is the *virtual* co-presence of all the elements of a totality in their real force-potential.<sup>106</sup> By privileging relations over predicates, properties, and substances, generalised chromaticism ventures beyond epistemological concerns and becomes genuinely ontological, i.e. interested in how reality is produced.

#### *Compass one: plane of organisation(s)*

The categories defined by the authors of the first compass envelop seven broad political positions from a selection of emerging practices worldwide (Fig. 1).<sup>107</sup> Clockwise: (1) *Techno-Critical*, a group of practices largely producing



speculative architecture, whose work builds upon, but also remains critical of the data-driven parametricism of their predecessors; (2) *Austerity-Chic*, a kind of architectural ‘normcore’ (to borrow a term from fashion) which focuses primarily on the production process and the resulting performance of architecture; (3) *Activists*, who reject architecture’s dependence on market forces by

Figure 1. Global architecture political compass, diagram drawn by and courtesy of Alejandro Zaera-Polo and Guillermo Fernández-Abascal, 2016

operating largely outside the market, with a focus on community building projects, direct engagement with construction, and non-conventional funding strategies; (4) *Material Fundamentalists*, whose return to the tactile and virtuoso use of materials is a response to the visual spectacle of pre-crash architecture; (5) *New Historicists*, whose riposte to the ‘end of history’ hailed by neoliberalism is an embrace of historically-informed design; (6) *Skeptics*, whose existential response to the collapse of the system is in part a return to postmodern critical discourse and in part an exploration of contingency and playfulness through an architecture of artificial materials and bright colours; and (7) *Populists*, whose work is calibrated to reconnect with the populace thanks to a media-friendly, diagrammatic approach to architectural form. Two of the seven categories have expanded to include a few more positional nuances. The *Austerity-Chic* has branched out into (2a) the *Technocratic* and (2b) the *Cosmopolitical*, and the *New Historicists* have expanded to range between (5a) *Constitutionalism* and (5b) *Revisionism*.

Zaera-Polo and Fernández-Abascal were careful to achieve a sense of continuity. In addition to the consideration of adjacencies, the diagram differentiates between the ‘pure’ organisations that populate the periphery of the compass and the hybrid ones occupying positions closer to the core (bull’s eye). In other words, the closer to the outer rim the more orthodox the respective categories, and vice versa. In the words of the authors:

For obvious reasons, neither the selection of practices nor their location has a pretension of rigor and wants to claim absolute authority, and has to be taken as a broad approximation to be discussed and corrected. The *experiment* is aimed as a polemical statement and it is aimed as a trigger for debate about the postpost-political. We are pretty sure that many of the protagonists themselves will feel — inevitably — that they have been misplaced, and we are sure that they will be probably right. The interesting question is: by how much?<sup>108</sup>

#### *Compass two: plane of constructive relays and emergent domains*

In the second compass, the bull’s eye plays no role whatsoever as the diagram is all about forming relays in the tradition of Simondonian ‘allagmatics’ (Fig. 2).<sup>109</sup> The starting position is that a survey of architectural heritage as epiphyllogenetic memory should begin by considering how the field itself has come to be and how it is formed. If the field of architecture is composed of quasi-subjects and quasi-objects by way of theoretical and practical endeavours, then the examination will shift to the problem of what holds them together and how they transform themselves and one another.<sup>110</sup> However, it has to be done in such a way that no single domain takes priority over others. Consequently, practice is not merely an application of theory and the object does not depend solely on the subject’s interpretation.<sup>111</sup>

One of the graphic references is Rem Koolhaas’s account of the contingent emergence of the skyscraper from his ‘retroactive manifesto’.<sup>112</sup> It was the invention of a new mode of vertical movement — the elevator — that arguably lifted off the novel typology that opened up an unprecedented existential niche: the culture of congestion.<sup>113</sup> Urban life suddenly expanded beyond a

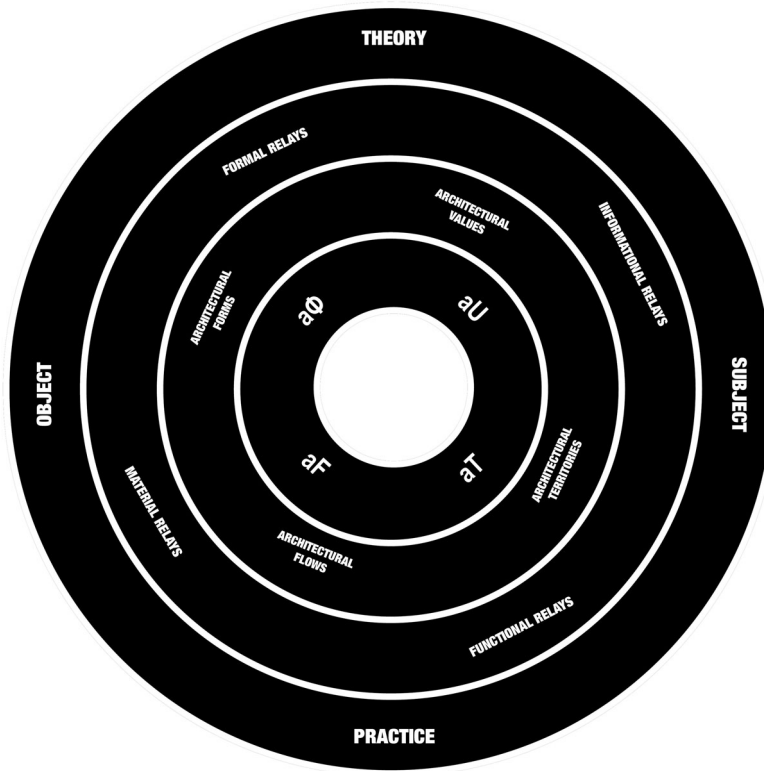


Figure 2.  
Architectural enunciation:  
constructive relays and emergent  
domains, diagram drawn by Andrej  
Radman and Stavros Kousoulas,  
2018

few stacked floors and triggered the formation of a new metropolitan subject, one that was theoretically impossible to foresee and which made sense only *ex post facto*.<sup>114</sup> The elements of the new architectural ecology — the objective vertical flow and form, and the non-discursive *umwelt* and *ethos* — are not to be examined in isolation or in a teleological and totalising manner. To acknowledge their entanglement is to affirm the primacy of (bare) activity under the pragmatist regime of generalised chromaticism.<sup>115</sup>

This kind of approach can be identified already in the natural philosophers of the nineteenth century and their architectural and artistic counterparts from Gottfried Semper to Aby Warburg. Subjectivity does not oppose objectivity; they envelop each other. They do so through a collective enunciation that does not fix the agency but continuously relays it. Practice is a set of relays from one theoretical point to another, while theory is a relay from one practice to another. Similarly, a subject is a set of relays from one objective point to another, and an object is a relay from one subject to another. The relays are not to be reified either. The formal, informational, functional, and material relays — that correspond to *four different causalities* — hold the field together solely on the premise of their mutual determination. They are not to be conflated. There is specificity in each quasi-cause that is nonetheless plastic



enough to allow for mutation as the *sine qua non* of creation, a non-zero sum game.

In the collective enunciation there emerges more than a transformation of terms. Similarly to the speciation of the skyscraper, what appears is the formation of *four architectural domains*. Afforded by relays and located between the respective terms, but simultaneously surpassing them, these domains hold together without the need for a hegemonic tie, all the while determining the field of architectural heritage and its transformations.<sup>116</sup> The starting point is the domain of architectural *Territories* (aT), followed by architectural *Values* (aU). These two domains mirror the domains of architectural *Flows* (aF), and architectural *Forms* (aΦ).<sup>117</sup>

What the second compass makes evident is that any survey of the architectural field needs to avoid a reductionist approach that would give primacy to one domain over the others: from the production of subject to the functions of architectural *Territories*, and on to the material modulations and energetic exchanges that the architectural *Flows* activate, to the given architectural *Forms* and their codifications that assist the emergence of the given theoretical abstractions and architectural *Values*, and back to an architectural subject produced from the informational proliferation that the architectural *Territories* trigger. As argued above, such meta-modelling cannot *not* be trans-disciplinary. Importantly, the surveyor needs to relate each of the terms and domains to the relays as affordances of affordances that determine the field's mutations — past, present, and yet to come. What is being sought is not only an insight into each of the domains, but crucially the relations between them: the self-referential dimension of architectural qualities and *Values*, the architectural bodies and *Territories* with their sensible, albeit amodal, experiences,<sup>118</sup> the world of things, energies, signs, and architectural *Flows*, and the conceptual realm of ideas and architectural *Forms*.<sup>119</sup>

The point of Architectural Collective Enunciation is that architectural heritage comprised of the quasi-objective *ontic* habitats can no longer be considered apart from the quasi-subjective *non-discursive* habits.<sup>120</sup> These *relata*, or the terms of the relation, are to be viewed in light of their reciprocal determination, designated by the Gibsonian relational concept of affordance.<sup>121</sup> Stengers's kindred strategy of forming relays as means-to-means helps to resist the totalising and hence hylomorphic temptations of means-to-ends, aka instrumentalism:

The question can no longer be, then, one of [critical] commentary, rendering explicit what would have remained implicit, clarifying or elucidating. Rather *it is about 'consolidating' just a little more – always a little more – which is to say, forming relays*.<sup>122</sup>

While meta-affordances as originary relays do not accomplish a political revolution, they are revolutionary through and through.<sup>123</sup> The discipline of architecture must distinguish between *is* and *ought*, fact and value, and properties and capacities. It must venture further still and raise the question of *what might be*, referring to the space of possibilities that is neither deterministic nor relativistic, but replete with *enabling* constraints. No matter how much the order of *is*



appeals to architects, they must gamble in favour of the incorporeal because only the virtual (ecology) will provide a way out of the status quo.

Architects are noetic or capable of thinking, conceiving, and realising conceptions precisely because their knowledge is not confined to their bodies. Thanks to the capacity for abstraction on the basis of epiphylogenesis, they have unique access to what I referred in the second part as the ‘memory of the future’. In other words, they are capable of not just a structural coupling with the (consistent) environment, for that would be purely genetic and not epigenetic.<sup>124</sup> The noetic impression does not remain trapped within an endo-somatic circuit, i.e. between the receptors and effectors that are the sensorimotor organs of every life form, from the bee to the architect.<sup>125</sup> Exo-somatization, as the very condition of *noesis*, marks a crucial step from adapting to adopting.<sup>126</sup> While insects enjoy vital unity at its most basic level, the ratcheting transindividuality is *psycho-social*, not purely social.<sup>127</sup>

To form relays — practical *and* theoretical — is to acknowledge the *real* distinction between content and expression as effectuated by abstract machines.<sup>128</sup> There is isomorphism with reciprocal supposition between subjectification and signifiante, but no resemblance. If value is that which motivates activity, only by tapping into the perpetually mutating counterfactual realm can one make sense of the actual reality and ways to change it. The distance between the declared ambition and the means to fulfil it will be the measure of achievement. The concept of generalised chromaticism is meant to help to steer clear of the ‘black hole’ which appears when the implicit order of the so-called *objectivity* is conflated with the explicit order of the given *object*, when territories and maps fully coincide. Yet, the map is not the territory and it is good that it is not. It is only good when it is not. To ecologise architecture is to understand that its object-hood has always been just a fraction of what constitutes the becoming of architectural heritage.<sup>129</sup>

## Disclosure statement

No potential conflict of interest was reported by the author.

## Notes

1. Donna Haraway, ‘Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective’, *Feminist Studies*, 14.3 (Autumn 1988), 575–99.
2. Claire Colebrook, ‘Leading Out, Leading On’, in *Nomadic Education: Variations on a theme by Deleuze and Guattari*, ed. by Inna Semetsky (Rotterdam: Sense, 2008), pp. 35–43 (p. 35).
3. Reza Negarestani, *Intelligence and Spirit* (Falmouth: Urbanomic, and New York, NY: Sequence Press, 2018), p. 78.
4. Didier Debaise, *Nature as Event: The Lure of the Possible* (Durham and London: Duke University Press, 2017), p. 66.
5. Katherine N. Hayles and Tony D. Sampson, ‘Unthought Meets the Assemblage Brain’, *Capacious: Journal for Emerging Affect Inquiry*, 1.2 (2018), 60–84 (p. 77).

6. Catherine Malabou, *Morphing Intelligence* (New York, NY: Columbia University Press, 2019), p. 111.
7. An abbreviated version of this article was presented in a talk on 8 November 2018 at Institute of Architecture, University of Applied Arts Vienna, under the title 'Generalised Chromaticism: Architecture's Sense and Sensibility'.
8. Gilles Deleuze and Félix Guattari, *What is Philosophy?* (New York, NY: Columbia University Press, 1994), p. 193.
9. Gilles Deleuze, *Nietzsche and Philosophy* (New York, NY: Columbia University Press, 2006), p. 50.
10. Gilles Deleuze, 'To Have Done with Judgment', in *Essays Critical and Clinical* (Minneapolis, MN: University of Minnesota Press, 1997), pp. 126–35 (p. 135).
11. Rosi Braidotti, 'Don't Agonise, Organize!', *e-flux conversations*, 14 November 2016 <<https://conversations.e-flux.com/t/rosi-braidotti-don-t-agonize-organize/5294>> [accessed 7 July 2021].
12. Stiegler articulated three different forms of memory: 'genetic' (DNA); 'epi-genetic' (acquired during lifetime and stored in the central nervous system); and 'epi-phylogenetic' (embodied in machinic systems such as architecture). See Bernard Stiegler, 'Who? What? The Invention of the Human', in *Technics and Time, 1: The Fault of Epimetheus* (Stanford, CA: Stanford University Press, 1998), p. 177; see also: Andrej Radman, Stavros Kousoulas, and Marc Boumeester, 'Epiphylogenetic Turn and Surroundings: In (Tertiary) Memory of Stiegler', TU Delft webinar in collaboration with ArtEZ University of the Arts and the Surroundings Lab network, 18 November 2020 <<https://youtu.be/fjyAm3VZ-c4c>> [accessed 7 July 2021].
13. Yuk Hui, *Recursivity and Contingency* (London and New York, NY: Rowman and Littlefield, 2019).
14. Robert Alexander Gorny, 'Reclaiming What Architecture Does: Toward an Ethology and Transformative Ethics of Material Arrangements', *Architectural Theory Review*, 22.2 (2018), 188–209.
15. Metastability can be understood as intrinsically delayed expenditure of potential energy'. See Jérôme Rosanvallon, 'Pure Variation and Organic Stratification', *Progress in Biophysics and Molecular Biology*, 110 (2012), 137–49 (p. 145).
16. See Jeffrey Kipnis, *A Question of Qualities: Essays in Architecture* (Cambridge, MA: MIT Press, 2013); and Andrew Zago, 'MSD at HOME with A. Zago', Melbourne School of Design, 3 June 2020 <<https://youtu.be/MYQExnb4udA>> [accessed 7 July 2021].
17. Peter Eisenman similarly sets 'practice' in opposition to 'project'. The latter critiques the *status quo* and is therefore inherently political. See Peter Eisenman. 'Project or Practice?', Syracuse University School of Architecture lecture series, 3 September 2011 <<https://youtu.be/TnyJRYuhHU>> [accessed 7 July 2021].
18. In the words of Daniel Ross: 'Transindividuation means that when one individual individuates themselves (for example, by speaking, expressing themselves by exteriorizing themselves, thereby inventing and producing themselves), others are also brought to speak, in their own singular ways, and yet in so doing they share and take into account the language of the first speaker, including by opposing them, thereby bringing about their own transformation and individuation. Transindividuation is thus what forms a "we" as a collectivity of singular "I"s, but crucially it always does so through a milieu, composed of signs, symbols, words, gestures, and all kinds of signifying objects. This milieu is itself individuated, that is, transformed, through the process of individuals and collectives individuating themselves *in* this milieu, and yet at the same time this symbolic milieu, as shared by all and exterior to all, is what allows for meanings to form, which are not fixed but which may be *relatively* stable (but this also means, *relatively unstable*,

- which Stiegler calls “metastability”).”; See Bernard Stiegler, ‘The Formation of New Reason: Seven Proposals for Renewal of Education’, trans. by Daniel Ross, in *The Participatory Condition in the Digital Age*, ed. by Darin Barney and others (Minneapolis, MN: University of Minnesota Press, 2016), pp. 269–83 (p. 281).
19. Malabou, *Morphing Intelligence*, p. 110.
  20. Gilbert Simondon, *Individuation in Light of Notions of Form and Information* (Minneapolis, MN, and London: University of Minnesota Press, 2020).
  21. ‘The more internal milieus an organism has on its own stratum, [...] the more deterritorialisated it is.’ See Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia* (London and New York, NY: Continuum, 2004), p. 54.
  22. Gilles Deleuze, *Cinema 2: The Time-Image* (London: The Athlone Press, 1989), p. 82.
  23. Gilles Deleuze, *Difference and Repetition* (New York, NY: Columbia University Press, 1994), p. 85.
  24. Simone Brott, ‘Collective Equipments of Power: The Road and the City’, *Thresholds*, 40 (Winter 2012), 47–54.
  25. According to Deleuze, the unconscious is a factory, not a theatre; and desire is established in an assemblage, always putting several factors into play. See Gilles Deleuze and Claire Parnet, ‘D as in Desire’, *ABC Primer*, 1996, directed by Pierre-André Boutang, trans. by Charles J. Stivale, 19 March 2017 <<https://deleuze.cla.purdue.edu/seminars/gilles-deleuze-abc-primer/lecture-recording-1-f>> [accessed 27 August 2022].
  26. Georges Canguilhem, *The Normal and the Pathological*, trans. by Carolyn R. Fawcett (New York, NY: Zone Books, 1999), pp. 181–201.
  27. Harry Heft, ‘Places as Emergent Dynamic Structures in Everyday Life’, 8 November 2018 <<https://www.youtube.com/watch?v=Eljsoaj0d44>> [accessed 7 July 2021]; see also Harry Heft, *Ecological Psychology in Context: James Gibson, Roger Barker, and the Legacy of William James’s Radical Empiricism* (Mahwah, NJ: Lawrence Erlbaum Associates, 2001), pp. 235–72.
  28. Hui, *Recursivity and Contingency*, p. 172.
  29. Beatriz Colomina and Mark Wigley, *Are We Human? Notes on an Archaeology of Design* (Zurich: Lars Müller Publishers, 2019), p. 23.
  30. *Architectures of Life and Death: The Eco-Aesthetics of the Built Environment*, ed. by Andrej Radman and Stavros Kousoulas (London: Rowman and Littlefield International, 2021).
  31. William M. Mace, ‘James J. Gibson’s Strategy for Perceiving: Ask Not What’s Inside Your Head, But What Your Head’s Inside of’, in *Perceiving, Acting and Knowing: Toward an Ecological Psychology*, ed. by Robert Shaw and John Bransford (Hillsdale, NJ: L. Erlbaum Associates, 1977), pp. 43–65.
  32. Simondon, *Individuation*, p. 17, emphases in the original.
  33. The notion of transduction is susceptible to auto-complexification, or falling out of phase with itself. See Jean-Hugues Barthélémy, ‘Fifty Key Terms in the Works of Gilbert Simondon’, trans. by Arne De Boever, in *Gilbert Simondon: Being and Technology*, ed. by Arne De Boever and others (Edinburgh: Edinburgh University Press, 2012), pp. 203–31 (p. 230).
  34. Deleuze, *Difference and Repetition*, p. 223.
  35. Simondon, *Individuation*, p. 691, emphases in the original.
  36. Deleuze and Guattari, *A Thousand Plateaus*, p. 374.
  37. Ronald Bogue, ‘Generalized Chromaticism’, lecture at ‘Taking Flight: Assembling, Becoming, Queering’, 10th International Deleuze Studies Conference, Toronto, 10 June 2017.
  38. Chromaticism (from Greek chroma, ‘colour’) in music involves the use of notes foreign to the mode or diatonic scale upon which a composition is based. Chromatic tones in

Western art music are the notes in a composition that are outside the seven-note diatonic, i.e. major and minor, scales and modes.

39. 'Pure variation [...] constitutes the fundamental given that does not require any explanation but is the basis upon which all aspects of reality must be explained. Stratification is the process through which this pure variation acquires a subsistence.'; See Rosanvallon, 'Pure Variation and Organic Stratification', p. 149.
40. Deleuze and Guattari, *A Thousand Plateaus*, p. 97.
41. Gilles Deleuze, *Foucault* (Minneapolis, MN: University of Minnesota, 1988), p. 131.
42. James Jerome Gibson, *The Ecological Approach to Visual Perception* (Mahwah, NJ: Lawrence Erlbaum Associates, 1986). For architectural appropriation of the concept, see Andrej Radman, 'Deep Architecture: An Ecology of Hetero-Affection', in *Architectural Affects after Deleuze and Guattari*, ed. by Marko Jobst and Hélène Frichot (London: Routledge, 2020), pp. 63–80.
43. Brian Holmes, *Escape the Overcode: Activist Art in the Control Society* (Eindhoven and Zagreb: Van Abbemuseum in collaboration with WHW, 2009).
44. Gilles Deleuze, *Bergsonism* (New York, NY: Zone, 1988), p. 44.
45. Gilles Deleuze and Félix Guattari, *Anti-Oedipus: Capitalism and Schizophrenia* (New York, NY: Penguin, 2008), p. 196.
46. Wassily Kandinsky, *Point and Line to Plane* (New York, NY: Dover Publications, 1979), p. 30.
47. On the concept of 'redundancy' in Deleuze and Guattari, see Chantelle Gray, '1956: Deleuze and Foucault in the Archives, Or, What Happened to the A Priori?', *Deleuze and Guattari Studies*, 15.2 (2021), 226–49.
48. Andrej Radman, 'Machinic Phylum and Architecture', in *Proceedings of the 2020 Digital FUTURES*, International Conference on Computational Design and Robotic Fabrication, ed. by Philip F. Yuan and others (Berlin and New York, NY: Springer, 2021), pp. 3–16.
49. Alfred North Whitehead, *The Principles of Natural Knowledge* (Cambridge: Cambridge University Press, 1919), p. 188.
50. Gilles Deleuze, 'The Exhausted', in *Essays Critical and Clinical* (Minneapolis, MN: University of Minnesota Press, 1993), pp. 152–74.
51. Stavros Kousoulas, 'Synaptic Passages: Architectural Technicities and Margins of Indeterminacy', 25 January 2021 <<https://youtu.be/6CE-KgZ6jkc>> [accessed 7 July 2021].
52. According to the QS University ranking by subject (2022), the architecture school at Delft University of Technology ranks first in Europe and second in the world. The Massachusetts Institute of Technology ranks first, University College London third, ETH Zurich fourth, Harvard University fifth and so on. Although the criteria behind the ranking remain opaque, TU Delft must be doing something right or be perceived to be doing it. See <<https://www.topuniversities.com/university-rankings/university-subject-rankings/2022/architecture-built-environment>> [accessed 7 July 2021].
53. Also known as the TINA paradigm; see: Mark Fisher, *Capitalist Realism: Is There No Alternative?* (Winchester: Zero Books, 2009).
54. Joan Ockman, 'Slashed', *e-flux Architecture*, History/Theory, October 2017 <<https://www.e-flux.com/architecture/history-theory/159236/slashed/>> [accessed 7 July 2021], emphasis added.
55. A representative selection of DSD publications can be found here <<https://www.artbook.com/nai010-dsd.html>> [accessed 7 July 2021]. The DSD produced its research under the leadership of its founding Director Arie Graafland; and Associate Director Deborah Hauptmann was instrumental in building its cohort of scholars.

56. Stupidity, at its most elementary level, is about insensitivity to difference, the loss of capacity to be affected. See Bernard Stiegler, *Nanjing Lectures 2016–2019* (London: Open Humanities Press, 2020), pp. 16–7.
57. Isabelle Stengers, 'Introductory Notes on an Ecology of Practices', *Cultural Studies Review*, 11.1 (March 2005), 183–96.
58. Instead of (civic) responsibility, I adopt Haraway's neologism 'response-ability' — the ability to respond — which by no means excludes Bartleby's 'I'd rather not'. See Donna J. Haraway, *Staying with the Trouble: Making Kin with the Chthulucene* (Durham and London: Duke University Press, 2016), p. 29; also see Gilles Deleuze, 'Bartleby; Or, The Formula', in *Essays Critical and Clinical* (Minneapolis, MN: University of Minnesota Press, 1997), pp. 68–90.
59. Erin Manning, *Always More Than One: Individuation's Dance* (Durham and London: Duke University Press, 2013), pp. 219–20.
60. Steven Shaviro, *Discognition* (London: Repeater Books, 2016), pp. 216–23.
61. Gökhan Kodalak and Sanford Kwinter, 'The Return of Nature', *Log*, 49 (2020), 1–3.
62. Félix Guattari, *The Three Ecologies* (London: Continuum, 2008).
63. Erich Hörl, 'The Ecologisation of Thinking', in *General Ecology: The New Ecological Paradigm*, ed. by Erich Hörl (London: Bloomsbury Academic, 2017), pp. 1–74.
64. Marc Boumeester and Andrej Radman, 'The Impredicative City: Or What Can a Boston Square Do?', in *Deleuze and the City*, ed. by Hélène Frichot, Catharina Gabriellsson, and Johnathan Metzger (Edinburgh: Edinburgh University Press, 2016), pp. 46–63 (pp. 57–60).
65. Manuel DeLanda, *Assemblage Theory* (Edinburgh: Edinburgh University Press, 2016), p. 3.
66. Manuel DeLanda and Graham Harman, *The Rise of Realism* (Malden, MA: Polity, 2017).
67. Charles Percy Snow, *The Two Cultures* (London: Cambridge University Press, 2001).
68. Manuel DeLanda, *Intensive Science and Virtual Philosophy* (London: Continuum, 2002), p. 47.
69. The trilogy refers to Sennett's project 'Homo Faber' that explores material ways of making culture. The first book in this series is *The Craftsman* (2008); subsequent volumes include *Together: The Rituals, Pleasures, and Politics of Cooperation* (2012); and *Building and Dwelling: Ethics for the City* (2018) on the making of the urban environment.
70. Deleuze and Guattari, *Anti-Oedipus*, p. 71.
71. Karen Barad, *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning* (Durham, NC: Duke University Press, 2007).
72. Claire Colebrook, *Understanding Deleuze* (Crows Nest: Allen & Unwin, 2002), p. xxiv.
73. Deleuze and Guattari, *A Thousand Plateaus*, p. 266.
74. Deleuze, *Difference and Repetition*, p. 79.
75. Benjamin Bratton, *The Revenge of the Real: Politics for a Post-pandemic World* (London: Verso, 2021).
76. Harry Francis Mallgrave, *From Object to Experience: The New Culture of Architectural Design* (London: Bloomsbury Visual Arts, 2018).
77. Shoshana Zuboff, *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power* (London: Profile Books, 2019).
78. Rick Dolphijn and Iris van der Tuin, 'Interview with Rosi Braidotti', in *New Materialism: Interviews and Cartographies*, ed. by Rick Dolphijn and Iris van der Tuin (London: Open Humanities Press, 2012), pp. 19–37.
79. Barad, *Meeting the Universe Halfway*, p. 132.
80. Ethan Kleinberg, Joan Wallach Scott, and Gary Wilder, 'Thesis on Theory and History', *Wild On Collective*, May 2015 <<http://theoryrevolt.com/>> [accessed 7 July 2021].

81. Lorenzo Magnani, *Abductive Cognition: The Epistemological and Eco-Cognitive Dimensions of Hypothetical Reasoning* (Berlin and Heidelberg: Springer-Verlag, 2009), p. 12.
82. William James, *Pragmatism: A New Name for Some Old Ways of Thinking* (New York, NY: Dover Publications, 1995).
83. Erin Manning and Brian Massumi, 'History through the Middle: Between Macro and Mesopolitics', interview with Isabelle Stengers, *iNFLeXions* 3, 2008 <[http://www.senselab.ca/inflexions/volume\\_3/node\\_i3/stengers\\_en\\_inflexions\\_vol03.html](http://www.senselab.ca/inflexions/volume_3/node_i3/stengers_en_inflexions_vol03.html)> [accessed 7 July 2021].
84. Isabelle Stengers, 'Thinking Life: The Problem has Changed', in *Posthumous Life: Theorizing Beyond the Posthuman*, ed. by Jami Weinstein and Claire Colebrook (New York, NY: Columbia University Press, 2017), pp. 325–38.
85. Joanna Zylinska, *Minimal Ethics for the Anthropocene* (London: Open Humanities Press, 2014).
86. Steven Shaviro, *Universe of Things: On Speculative Realism* (Minneapolis, MN: University of Minnesota Press, 2014).
87. 'On the Right, the free market libertarians became convinced that bottom-up emergence was all that was needed. But in fact, this gave way to huge platforms, corporations, and technocracies that are based on deliberate, top-down, structured long-term planning, and are successful for it. On the Left, the deconstruction of governmentality was honed into increasingly fine filters'. See Benjamin Bratton, 'New World Order: For Planetary Governance', *Strelka Mag*, 11 March 2021 <<https://strelkamag.com/en/article/new-world-order-for-planetary-governance>> [accessed 7 July 2021].
88. See *The Politics of the Impure: Towards a Theory of the Imperfect*, ed. by Joke Brower and others (Rotterdam: V2\_Publishing and NAi Publishers, 2010); and Agnieszka Wołodźko, *Bodies Within Affect: On Practicing Contaminating Matters through Bioart* (unpublished doctoral thesis, Leiden University, 2018).
89. Laboria Cuboniks, 'Carry: 0x17', in 'XF Manifesto: Xenofeminism – A Politics for Alienation', 2015 <<https://laboriacuboniks.net/manifesto/>> [accessed 7 July 2021].
90. Anne Sauvagnargues, *Atrmachines: Deleuze, Guattari, Simondon* (Edinburgh: Edinburgh University Press, 2016).
91. John Sellars, 'The Point of View of the Cosmos: Deleuze, Romanticism, Stoicism', *Pli*, 8 (1999), 1–24.
92. Sanford Kwinter, 'Who's Afraid of Formalism?', in *Phylogenesis: FOA's Ark*, ed. by Michael Kubo and Albert Ferré with FOA (Barcelona: Actar, 2003), pp. 96–9.
93. Sanford Kwinter, 'Radical Anamnesis (Mourning the Future)', in *Far From Equilibrium: Essays on Technology and Design Culture* (Barcelona: Actar, 2008), pp. 140–2 (p. 142).
94. Malabou, *Morphing Intelligence*, p. 141.
95. Didier Debaise, 'What is Relational Thinking?', *iNFLeXions*, 5 'Milieus, Techniques, Aesthetics' (2012), 1–11 (p. 7).
96. Gilles Deleuze, 'One Manifesto Less', in *The Deleuze Reader*, ed. by Constantin V. Boundas (New York, NY: Columbia University Press, 1993), pp. 204–22 (p. 215).
97. Martin Heidegger, 'Building Dwelling Thinking', in *Poetry, Language, Thought* (New York, NY: Harper and Row, 1971).
98. Natasha Dow Schüll, *Addiction by Design: Machine Gambling in Las Vegas* (Princeton, NJ, and Oxford: Princeton University Press, 2012).
99. Deleuze, *Nietzsche and Philosophy*, p. 39.
100. Sanford Kwinter, 'Non-Ordinary Reality: Beyond the Virtual', Venice Biennale IoA Panel Discussion, 26 May 2018 <<https://www.youtube.com/watch?v=VtzY2pZmjNg>> [accessed 7 July 2021].

101. Alejandro Zaera-Polo, 'Well into the 21st Century: The Architectures of Post-Capitalism?', *El Croquis*, 187 (2016), 252–87 (p. 255).
102. Andrej Radman and Stavros Kousoulas, 'Architectural Collective Enunciation: A Question of Forming Relays', description for exhibition 2–23 April 2018, Architecture Theory Chair, TU Delft <<https://www.tudelft.nl/en/architecture-and-the-built-environment/about-the-faculty/departments/architecture/organisation/groups/architecture-philosophy-and-theory/research-publications/architectural-collective-enunciation>> [accessed 7 July 2021].
103. Charles Jencks, *Architecture 2000: Prediction and Methods* (London: Studio Vista, 1971).
104. Félix Guattari, *Schizoanalytic Cartographies* (London: Bloomsbury, 2013).
105. Charles Jencks and Alejandro Zaera-Polo, 'Organizing Tendencies', CCA conversation, London, December 2017 <[https://www.youtube.com/watch?v=L\\_a2GbbJ1dw&vI=en](https://www.youtube.com/watch?v=L_a2GbbJ1dw&vI=en)> [accessed 7 July 2021].
106. Deleuze and Guattari, *A Thousand Plateaus*, pp. 269–70.
107. Alejandro Zaera-Polo and Guillermo Fernandez Abascal, 'Architecture's "Political Compass": A Taxonomy of Emerging Architecture in One Diagram', *Arch Daily*, 16 December 2016 <<https://www.archdaily.com/801641/architectures-political-compass-a-taxonomy-of-emerging-architecture-in-one-diagram>> [accessed 7 July 2021].
108. Alejandro Zaera-Polo, 'Well into the 21st Century', p. 255, emphasis added.
109. Simondon defines 'allagmatics' as the theory of operations whereby operation is a conversion of one structure into another; see Simondon, *Individuation*, pp. 663–73.
110. According to Negarestani, what principally distinguishes 'general intelligence' from quantitative 'problem-solving' intelligence is the fact that the former is the product of a qualitative integration of capacities or faculties that might otherwise be quantitative when taken individually; see Negarestani, *Intelligence and Spirit*, p. 20.
111. Michel Foucault and Gilles Deleuze, 'Intellectuals and Power', in *Language, Counter-Memory and Practice*, ed. by Donald F. Bouchard (Ithaca, NY: Cornell University Press, 1977), pp. 205–7.
112. Rem Koolhaas, *Delirious New York: A Retroactive Manifesto for Manhattan* (New York, NY: Oxford University Press, 1978).
113. Rem Koolhaas, "'Life in the Metropolis" or "The Culture of Congestion"', *Architectural Design*, 47.3 (1977), 319–25.
114. The 2020 pandemic will have inevitably transformed the fourfold diagram.
115. Brian Massumi, *Ontopower: War, Powers, and the State of Perception* (Durham and London: Duke University Press, 2015), pp. 44–9.
116. Andrej Radman, 'Zigzagging: Bound by the Absence of Tie', in *The Dark Precursor: Deleuze and Artistic Research*, ed. by Paulo de Assis and Paolo Giudici (Leuven: Leuven University Press, Orpheus Institute Series, 2017), pp. 182–91.
117. Andrej Radman and Heidi Sohn, 'The Four Domains of the Plane of Consistency', in *Critical and Clinical Cartographies: Architecture, Robotics, Medicine, Philosophy*, ed. by Andrej Radman and Heidi Sohn (Edinburgh: Edinburgh University Press, 2017), pp. 1–20.
118. The information cuts across modalities, allowing an event specified in one modality (e.g. image) to be directly retrieved in another modality (e.g. sound); see Stephen Robbins, *Collapsing the Singularity: Bergson, Gibson and the Mythologies of Artificial Intelligence* (Scotts Valley, CA: Createspace Independent Publishing Platform, 2014).
119. In his book on Guattari, Berressem offers a graphic example of the greening fourfold: 'There is an actual and real, given green. A green as Flow. Then there is, from within a more bio-chemical context, the green that plants use to procure nutrition, which means a green that has become, in some aspects, part of a plant-nutrition rhizome. A green of Phyla [Form]. Then there is the green that carries affect, such as Gatsby's

green light at the end of Daisy's dock. This is the affective green of Territories. And finally, there is chlorophyll or, metatheoretically, the diffracted green that is constructed by Guattari in his text: The immaterial concept of green constructed within the field of Universes [Value]. See Hanjo Berressem, *Félix Guattari's Schizoanalytic Cartographies* (Edinburgh: Edinburgh University Press, 2020), pp. 101–2.

120. Peter J. Richerson and Robert Boyd, *Not by Genes Alone: How Culture Transformed Human Evolution* (Chicago, IL, and London: The University of Chicago Press, 2005).
121. Gibson, *The Ecological Approach to Visual Perception*; see also the recent special issue of *Media Theory* that re-examines affordance for the digital age: Ashley Scarlett and Martin Zeilinger, 'Rethinking Affordance', *Media Theory*, 3.1 (2019), 1–48.
122. Stengers, 'Thinking Life', p. 329, emphasis added.
123. Stephen Zepke, "'A Work of Art Does Not Contain the Least Bit of Information": Deleuze and Guattari and Contemporary Art', in *Art History After Deleuze and Guattari*, ed. by Sjoerd van Tuinen and Stephen Zepke (Leuven: Leuven University Press, 2017), pp. 237–53 (p. 241).
124. Humberto R. Maturana and Francisco J. Varela, *Autopoiesis and Cognition: The Realization of the Living* (Dordrecht: D. Reidel Publishing Company, 1980).
125. Bernard Stiegler, *Automatic Society: Volume 1 The Future of Work*, trans. by Daniel Ross (Cambridge: The Polity Press, 2016), pp. 226–28.
126. Stiegler makes a fundamental contrast between adapting and adopting. In the words of Daniel Ross: 'Adoption is thus associated with individuation, whereas adaptation is associated with disindividuation. To adapt to a norm, for example, presumes the norm exists independently of the individual, whereas to adopt a norm implies it exists only in being adopted. Adaptation presumes a relationship between preexisting terms, whereas the terms of an adoption do not preexist their relationship. Stiegler's concept of adoption is thus implicitly and explicitly a critique of the ideology of adaptation exemplified in the notion that "there is no alternative [TINA]".' See Stiegler, 'The Formation of New Reason', p. 283.
127. Simondon, *Individuation*, p. 188.
128. 'The abstract Machine exists simultaneously developed on the destratified plane it draws, and enveloped in each stratum whose unity of composition it defines [...].' See Deleuze and Guattari, *A Thousand Plateaus*, pp. 44, 70.
129. Hélène Frichot, *Creative Ecologies: Theorizing the Practice of Architecture* (London and New York, NY: Bloomsbury Visual Arts, 2019), p. 101.