

Irigaray's Ecological Phenomenology: Towards an Elemental Materialism

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Summary

This article provides an interpretation of the ecophenomenological dimension of Luce Irigaray's work. It shows that Irigaray builds upon Heidegger's recovery of the ancient sense of nature as *physis*, self-emergence into presence. But, against Heidegger, Irigaray insists that self-emergence is a material process undergone by fluid elements, such as air and water, of which the world is basically composed. This article shows that this 'elemental materialist' position need not conflict with modern science. However, the article criticises Irigaray's claim that men and women inhabit radically different sexuate worlds. Although this claim has some phenomenological basis, ultimately it is undercut by Irigaray's own elemental materialism, which implies that sexuate difference colours our perception but does not cleave it down a radical difference in kind. We can therefore accept and develop Irigaray's contribution to ecophenomenology without her insistence on radical sexuate duality.

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1. Introduction

In this paper I provide an interpretation of the ecophenomenological dimension of Luce Irigaray's work.¹ By ecophenomenology, I understand any thinking that addresses the ecological crisis by way of the phenomenological tradition with its mission to return 'to the things themselves', that is, to phenomena as they immediately present themselves to perception. To interpret Irigaray's thought as ecophenomenological, I argue that she builds critically upon Heidegger's return to nature in the sense of *physis*, but that she re-affirms that the world is of *material* nature, composed of fluid elements such as air and water which enter into successive perceptible forms that interpenetrate to make up the world.

The elemental materialism that Irigaray thus develops is *ecophenomenological* because it emerges from her reworking of ideas from the phenomenological tradition. She takes forward Heidegger's return to *physis* as the spontaneous upsurge of perceptible forms, but she re-emphasises that *physis* is a process of material growth in which fluid elements take on shape. Her approach is *ecophenomenological* because she returns to the world as one that is originally not only natural but also material, and is the prior condition both of embodied beings capable of perceiving and of perceptual relations between these beings and the world. In this way she re-emphasises the dependence of human perceivers on the natural world within which they are situated.

One of Irigaray's ecophenomenological tenets, then, is that we inescapably perceive as bodily and so sexuate beings. But, more than this, Irigaray problematically claims that men and women, boys and girls, inhabit radically different sexuate worlds. I argue that this claim is undercut by her own elemental materialism, which implies that sexuate difference colours

our perception but does not cleave it down a radical difference in kind. We can accept Irigaray's ecophenomenology without her insistence on radical sexual duality.

Another question is whether Irigaray's return to the ancient elements – air, fire, water, earth, and possibly others too (light, stone, wood) – must conflict with modern scientific accounts of the chemical elements and their atomic structures. That would be unfortunate, for ecophenomenologists should not throw modern science overboard. We owe the sciences our knowledge of climate change, species and habitat loss, ocean and soil degradation, and other facets of the ecological crisis. Having said that, on ecological grounds we also need to criticise the technoscientific project of knowing and controlling the whole of nature. We can meet both needs by recognising that the sciences give us part – but only part – of the truth of nature. The sciences tell us about the underlying structures of nature, at a high level of abstraction from the concrete ways that these structures are instantiated, whereas perception informs us about the more concrete character of nature, including its elemental make-up.ⁱⁱ Indeed, I will argue, perception tells us something about not only nature as it presents itself to perception but also nature as it must intrinsically be for the particular perceptible face that it offers to be possible. But perception does not tell us everything either, which opens space for science and perception to learn from one another. Thus, although phenomenology was born in antagonism to scientific naturalism, phenomenology and naturalism – i.e. scientific accounts of natural and bodily processes – can actually work together, as we need them to do for ecophenomenological thinking to be possible.ⁱⁱⁱ Yet, since both these ways of knowing nature have inherent limits, their combination does not add up to total comprehension of the natural world. Human knowledge cannot overreach the natural world, which sets limits to the technoscientific project of total understanding and control.

2. Two Phenomenological Strands: Everyday Realism and Deep Process

Charles Brown and Ted Toadvine rightly claim that ‘the history and development of the phenomenological tradition ... reveals numerous interwoven strands that lead, through their own internal tensions, toward the emergence of ecological reflection’.^{iv} In this section I provide a background for my interpretation of Irigaray by identifying two of these strands that we can see converging in her work. The first strand arises from the core phenomenological project of returning to the things themselves, *zu den Sachen selbst*. Along this strand, phenomenology becomes a kind of everyday realism about things and the world that these things compose.^v The second strand arises from Heidegger’s turn from beings to being and his subsequent turn towards *physis*. This is a re-orientation towards the deep temporal process of upsurge into presence, which subtends and preconditions all appearing beings.

Let us begin with the everyday realist strand. For Husserl, to return to things themselves was to bracket theoretical assumptions and abstractions so that I can redirect my attention towards what is certain: what is given (*gegeben*) to my experience – or, in Merleau-Ponty’s rendition, to perception as my pre-theoretical medium of contact with the world. In attending to this I return to *things themselves* because what is given to me *is* things, directly – I do not access things indirectly through the medium of ‘ideas’ or ‘representations’: those are mere theoretical constructs.^{vi} Moreover, what is there is never individual things simply as such, but rather things nested and entangled together into contexts, each open onto and entangled with further contexts, thus ultimately invoking the totality of all such contexts – the world. What we encounter always shows itself as part of this single whole world. Hence, Merleau-Ponty writes, ‘We must not ... wonder whether we really perceive a world, we must instead say: the world is what we perceive’.^{vii} As a single whole encompassing all beings and perceivers, the world is shared in common.

Thus there is a strand of phenomenology that is ontological in a fairly traditional sense of ontology, as inquiry into the real character of the beings that exist and compose the world,

albeit that these beings are now those given to us in perception rather than being assumed to lie beyond any veil of perception.^{viii} It is through perception that we learn about things and the world that they make up, and about their real characteristics, where one of the characteristics that things and the world really have is to appear to us. To perceive things and the world is to apprehend them through the senses that we have only as embodied beings, while, being embodied, we are inescapably located within the world. Moreover, Merleau-Ponty maintains, our senses initially co-operate together in perception, which involves an original synaesthesia (PP 266). As such, a constitutive element of our sensory contact with beings is their showing themselves to us as tangible and, as such, as physical: occupying place, presenting resistance, solidity, and density.

Admittedly, we do not always perceive things exactly as they are independently of their being perceived, given the contribution of our sensory powers and the fact that, since we are embodied, our perception is always imbued with desire. Yet this distinction between appearance and reality arises *within* perception: beings present themselves as going beyond what they show me, having hidden depths. While we can probe these depths, this opens up an ever-receding horizon of further depths, so that perception inescapably presents itself as limited by the inexhaustible excess or transcendence of the world (PP xviii-ix). Even so, this is another real characteristic of beings and the world about which perception informs us: that they extend beyond the aspects that they present to us.

It might be objected that phenomenology cannot be reduced to being ontological in this sense – as investigating the real characteristics of *entities* (beings, *étants*, *seiende*) – because this perpetuates the neglect of being (*l'êtré*, *Sein*) that Heidegger and other phenomenologists informed by him question. Moreover, the everyday realist strand already points to the difference between being and beings. For when perception discloses the inexhaustible background encompassing all things, what is revealed is the fullness of being

that is never exhausted by any finite entities, and that is revealed to us, paradoxically, as necessarily transcending our knowledge. This leads to a second phenomenological strand, Heidegger's recovery of being – that through which everything that is is – which, in his later work, he comes to think as the necessarily temporal upsurge by which beings come into, endure for a while in, and pass out of being. This takes Heidegger towards ecology, for he interprets this movement whereby things come to appearance as *nature*, albeit nature restored to its ancient Greek sense as *physis*.^{ix} Crucial here is his long 1939 essay 'On the Essence and Concept of *Physis* in Aristotle's *Physics B, I* .

Heidegger reads Aristotle as turning away from pre-Socratic towards Latin thought, setting the West on a course that has culminated in modern technoscience. Yet Aristotle retains traces of the pre-Socratic conception of nature as *physis*, a conception relatively faithful to immediate perception. Aristotle made conceptual shifts, though, that prepared for the Latin concept of *natura*, according to which the nature of something is what that thing at root is. A thing's nature is its essence, innate constitution, or fixed principle ('she can't do otherwise, it's in her nature'). This, Heidegger says, is our accepted, inherited common-sense about nature. To shake this common-sense we must trace its Aristotelian roots whilst also unearthing the contrasting elements in Aristotle – his pre-Socratic residues.

According to Heidegger, Aristotle begins his account of nature in the *Physics* from the thought that natural beings are in movement – not merely locomotion but also growth and, generally, change – and that this character of being in movement is what makes these beings, specifically, *natural* (beings-from-*physis*). They are *self*-changing, *self*-moving, whereas an artefact only ever 'moves' – comes into existence or changes place or character – when an artisan makes it do so, guided by an idea (*eidos*) of its purpose (*telos*). Natural and artificial beings thus differ radically, for artefacts come to exist by virtue of human ideas and skill, whereas natural beings come to exist just of themselves. For Heidegger, this distinction

reflects Aristotle's pre-Socratic inheritance, for the pre-Socratic view was that beings come to be just by surging up, erupting into existence, with no pre-set *telos* within them to direct or limit this pure eruption (or *genesis*). 'The rose has no why; it blooms because it blooms', as the seventeenth-century German mystic Angelus Silesius later put it.^x There can be no *telos* prior to the sheer eruption into being, because something must first exist before it can have a *telos*: the upsurge into being is therefore brute, radically original, and is *physis*, through which all things are.

Physis thus is the pure event of coming to manifestation, or the movement of appearing: 'we find what is *physis*-like once when we come upon a *placing into the appearance*' (*Gestellung in das Aussehen*).^{xi} For things to appear or disclose themselves to us, then, is for things to be natural in the original sense – of-*physis*, spontaneously coming forth. Because artisans, too, must first appear before they can make artefacts, *physis* precedes and enables artificial creation: all that is is originally of-*physis*.

These claims become proto-ecological through their connection with Heidegger's critique of technoscience. For him, the already debased Latin concept of *natura* has degenerated further into the technoscientific project of using all of *physis* – all that is self-generating – as energy-sources. Believing that things have fixed 'natures', guiding essences that power them, we have become ambitious to know these essences so that we can manipulate and control things' behaviour and thus unlock their powers. Yet if *physis* is a radical upsurge whose movement and direction we cannot possibly fully predict or control, then the *hubris* and danger of technoscience stand exposed. If we returned to appearance as *physis*, we would have to acknowledge that *physis* exceeds our epistemic and practical powers and so live more humbly, less hubristically.

Heidegger's critique of technoscience, however, leaves little room for productive conversation between phenomenology and the sciences. We need such conversation if we are

to understand the physical processes fuelling the ecological crisis, as well as the broader material nature of organism-environment interactions, as ecophenomenology requires. Here the first strand of phenomenology can help – inquiry into the real character of the beings that compose the world, as material beings that reveal their physical qualities to our touch and other senses. Along this strand, phenomenology investigates the same physical beings that the sciences study, albeit through perception rather than theoretical abstraction. This shared subject-matter permits the two approaches to learn from and inform one another. For ecophenomenological purposes, then, we need to combine Heidegger’s return to *physis* with an orientation towards beings in their physical make-up.

Irigaray undertakes this. She builds on Heidegger’s recasting of nature as *physis*, his return to *morphe* as perceptible appearance, and his attention to this spontaneous movement into appearance. Yet, in her 1983 book *The forgetting of air in Martin Heidegger* (hereafter *Forgetting*), Irigaray objects that if we prioritise being over beings – over perceptible, tangible, material beings (*les étants physiques*, be they living or non-living bodies or their material elements) – then we downgrade materiality in ontological status. From Heidegger’s perspective something can only be material (or immaterial) if it first is, i.e. comes to appearance; therefore, coming to appearance cannot itself be material; thus materiality becomes ontologically derivative or secondary, when it should be recognised as primary. Let us examine Irigaray’s criticism then see how she responds to Heidegger’s perceived failings by bringing together the two phenomenological strands considered earlier.

3. Irigaray, Heidegger, and Material Nature

In this section I reconstruct first Irigaray’s critique of Heidegger and then the elemental materialist position implied by this critique. They both require interpretive reconstruction because *Forgetting* is not a systematic treatise but moves between Heidegger’s texts and

Irigaray's reflections, often posing unanswered questions. Furthermore, Irigaray does not simply reject Heidegger's approach to *physis*. Rather, she tries to extricate his recovery of *physis* from (what she sees as) his privileging of form and subjectivity over the materiality of the world.

Amongst Irigaray's recurring questions to Heidegger is 'Of what [is] this *is*?':^{xii}

The clearing of the opening, "of what" [«*en quoi*»] can this be? – one could have asked him. This old philosophical question never seems to have been put to him. ...

Too "sensible", or too "physical"? ... "Of what" [is] being, this is not "posed". It is, always, pre-supposed. Fore-seeable, pre-established. ... And the question: "of what" is thought made, being left unthought. (FA 3/11)

This deceptively simple question pertains to Heidegger's conception of *physis*. Admittedly, Irigaray does not explicitly reference his paper on Aristotle on *physis*, but her book contains few direct references at all, whilst as Helen Fielding observes 'there seem to be echoes of this paper [on Aristotle's *Physics*] throughout *The Forgetting of Air*'^{xiii} – not surprisingly, since Heidegger's reading of Aristotle on *physis* is fundamental for his subsequent work.

In particular, Irigaray's 'of what' question targets Heidegger's overt privileging of form (*morphe*) over matter (*hyle*). The form/matter contrast organises Aristotle's view of nature, but Heidegger radically reinterprets these concepts in the context of his complaint that Aristotle covers up the original meaning of *physis* and thereby paves the way for Latin thought. Aristotle does this (Heidegger charges) by grasping the self-movement of natural beings as their fabricating themselves in line with an inner purpose or blueprint: so that, for example, an acorn contains in nucleus a blueprint (its *telos*) for becoming an oak tree, which moulds its growth and behaviour. Aristotle thus misunderstands the natural being as a self-making artefact. This misunderstanding is bound up with Aristotle's teleological and

hylomorphic theory that a natural being's form structures its matter and supplies the *telos* governing its development.

As Heidegger also argues, Aristotle put forward this model against Antiphon the sophist. Antiphon held that the nature of any entity is the substratum of matter of which it is composed, of which its form(s) are mere superficial modifications.^{xiv} For Heidegger, Aristotle rightly re-emphasises form, but under a concept of form that is already diminished compared to pre-Socratic thought. Aristotelian form is an intelligible structuring principle that endures through change and so can be held steady before the mind to be known. Originally, though, *morphe* meant something quite different: visible appearance, the shifting, fluctuating perceptible surface that presents itself to us. *Physis* as presenting into appearance was, therefore, self-placing into *morphe*.

What, then, of *hyle*? For Heidegger, 'The self-placing into the appearance always lets something be present in such a way that *in* the presenting an absencing simultaneously becomes present' (in *der Anwesenung eine Abwesenung anwest*; ECP 227/297). When something grows into a new form, its old form disappears – becoming a sapling, an acorn stops being an acorn; becoming a mature tree, it is no longer a sapling. More basically, when any entity comes into appearance the *process* of appearing that makes this possible cannot appear, because that process is the prior condition of anything's being in appearance. This generative process remains in the background, hidden, invisible. This invisible background underlying visible appearance is what Aristotle reconceives as intrinsically formless material stuff that gets structured by form (already effectively in the sense it will have for the Latins as *forma*). Originally, though, Heidegger claims, *hyle* meant hiddenness (*Verborgenheit*), the withdrawal or pulling-back (*Entzug*) into darkness that shadows all coming-to-light.

Irigaray objects that Heidegger strips *hyle* of its materiality, its stuff-ness (that 'of which' it is), recasting *hyle* as invisible process, pure generative activity without substance.

He neglects the ‘material substratum’ – *le substrat matériel* – of what appears (FA 41/41). Heidegger could reply that to be material something must first be; hence must appear; hence must already have a subtending background of invisibility – so that the background must precede and cannot possibly consist of any material substance. Nonetheless, Irigaray insists, the world ends up cast as a strangely de-materialised place where things (*choses*) ‘cut from their natural enrootedness, float about, wandering the propositional landscape. The *phuein* of physical beings [*étants physiques*] is forgotten in the *physis* of the *logos*’ (FA 86/81). Irigaray objects that *hyle* is understood here *in relation* to appearance, as the invisibility that makes appearance possible, the nurturing soil enabling form to shine forth. Appearance, in turn, is *to us*, perceivers, those for whom there is a world. Irigaray thus suggests that the pre-Socratic thinker to whom Heidegger is most loyal is Parmenides, for whom being and thought form a circle in which being is always correlated with the thought that thinks it (FA 2/9). If *hyle* enables *morphe* and *morphe* is for the perceiver, then – despite Heidegger’s rejection of the subject-object dichotomy – all that is is *for* perceiving and speaking beings: ‘*Physis* is always already subjected to ... the technology and science of the *logos*’ (FA 86-87/81).

These claims are not wholly charitable: for Heidegger, *logos* is not originally language but the self-gathering of things into appearance that first makes true and false speech and judgements about things possible. Irigaray can reply that this gathering is still into appearance *to* the perceiver. Yet, Heidegger clarifies, to appear is to become available *to be* seen in a given way even if what appears is not actually seen: “*Ἰδέα* is “the seen” [*das Gesichtete*], but not in the sense that it becomes such only through our seeing [*das Sehen*]. Rather, *ιδέα* is what something visible offers to our seeing’ (ECP 210/275). Further, Heidegger rejects the whole modern conception of those who see as representing, projecting, valuing subjects, re-emphasising the dependency of our seeing on what offers itself to us. Even so, Heidegger thus remains concerned to think *physis* in inextricable *relationship* with those to whom it offers

(*bietet*) its appearances – in effect, human beings. For Heidegger, what is simply *is* what appears to us, and nature *is* the event of coming to appearance to us, so that perceiver and nature as *physis* are strictly correlative to one another^{xv} (belonging together in *Ereignis*). ‘The place [*là*] where – and whence– man draws his origins, he says, would not be, without the being [*l’être*] of man. The loop is closed up’, Irigaray objects (FA 26/29).

For Irigaray, in contrast, the nature in which we originate is prior to human perceivers both temporally (from an ecological standpoint, the human perceiver emerges from the pre-human world through evolution and deep chemical processes whereby non-living matter came to life) and, above all, causally. Perceiving bodies can exist only as a derivative modification and development of material nature, something which is possible only if nature first pre-exists perceivers so as to develop into them. ‘[T]he being [*l’être*] of man is just one part of beings [*n’est qu’une partie de l’étant*] ... beings, physical beings, exceed the being of man [*l’étant, les étants physiques, débordent l’être de l’homme*]’ (FA 87-88/82). Things cannot be available to be seen – cannot be even potentially visible – until there are perceivers who can potentially see these things, even if they do not actually do so. Yet Heidegger falsely portrays the world as giving itself to potential perception even before the world has developed into the shape of embodied perceivers. Thus Heidegger casts *physis* and the perceiver as symmetrically dependent upon one another, when really the dependency is asymmetrical, of perceiver on *physis* and not *vice versa*. This ties in with Irigaray’s complaint that Heidegger neglects the material embodiment of the perceiver (FA 26-27/29-30). For her, the perceiving being is necessarily embodied because it derives from the material world. Because Heidegger does not adequately grasp that derivation, neither can he fully appreciate that the perceiver is a bodily being.

These objections are still not wholly fair. Heidegger regards *hyle* as a positive, productive excess (*Übermaß*) over *morphe*, an excess containing more than can ever appear.

Thus while *hyle* generates and enables *morphe*, *hyle* outstrips and is never exhausted in *morphe*. In consequence, perceptible forms also contain an irreducible excess beyond what we perceive in them. If *hyle* is not simply for *morphe*, neither is *morphe* ever simply for the perceiver. To this extent Heidegger does acknowledge our dependency on a source that exceeds our cognition, being knowable only (paradoxically) as the movement of absencing and withdrawal. Moreover, he identifies this source with nature in its aspect as *hyle*, which implies a radical dependency of human perception on material nature. Yet, because Heidegger ultimately privileges *morphe* and thereby casts perceiver and being as belonging together in appearance, he becomes led back towards understanding *hyle* in relation to perception, albeit the negative relation of withdrawing from appearance. Despite himself, therefore, Heidegger cannot fully explore the positive, productive excess of *hyle*.

Irigaray aims to correct this oversight by pressing the questions of *what hyle* is and therefore what *physis* is made of – in defiance of the fact that these questions are wrongheaded from Heidegger’s perspective. Her defiant inquiry into ‘that (of) which’ *physis* is has a feminist motivation. Western tradition, including Aristotle, has favoured form over matter as constant over changing, intelligible over sensible, and male over female.^{xvi} Heidegger diverges: for him, form visibly manifests itself to our senses and comes to do so temporally; form is changing and perceptible, not eternal and intelligible. Yet from Irigaray’s perspective he still privileges form over matter, a hierarchy that retains its historically entrenched gender connotations. To explore the materiality of *physis*, instead, is to re-emphasise what is symbolically female.

To explore *hyle* Irigaray builds on Heidegger’s concept of *physis* as dynamic upsurge, but she re-affirms that this upsurge into appearance is a *material* upsurge. What does it mean to say that forms materially surge up, that genesis is material, that things materially emerge into presence? One answer can be found in the contemporary project of ‘material feminism’,

which often has an ecofeminist slant. Rather than shying away from materiality for fear of falling into essentialism and biological determinism, material feminists rethink materiality as an active, dynamic, creative force – an agency of change and not a static source of limits, in which feminists can find an ally in their efforts to change society for the better.^{xvii} If matter is dynamic, reciprocally dynamism is material – where for most material feminists it is the sciences that specify what it is for something to be material, be these Darwinian evolutionary theory, neurobiology, or quantum physics.^{xviii} Material feminists thus work with scientific theories to bring out how they cast matter as dynamic.

Irigaray instead probes what it is for something to be material by retrieving the pre-Socratic elements – especially air, of which she reminds Heidegger (and water, of which she reminds Nietzsche in *Marine Lover*; and fire, of which she intended to remind Marx in her never-published text on his work). This is a phenomenological approach, since she takes it that these elements are immediately perceptibly evident – ‘The excess of air is ... so immediately “evident” ... that he did not think of it’ (FA 40/41), she says of Heidegger, accusing him of taking an insufficiently phenomenological approach to *physis* and instead relying on abstract theoretical concepts (*physis*, *hyle*, *entelechia*, *dynamis*, etc.). We might object that the four elements are only directly perceptible to those who approach the world through theory: specifically through the pre-Socratic framework for classifying the world. But Irigaray would likely reply that the pre-Socratics adopted that classification because their way of doing science was to cultivate faithfulness to, not abstract from, perceptible givens. If the idea of the four elements constitutes a theory, this is not in the modern sense of an abstract explanatory framework but in a distinctively ancient sense as a description that crystallises what is concretely perceptible.

Let me now reconstruct Irigaray’s view of the elements before pulling out its ambiguities. Air, water, fire: these and other fluid, shifting, boundary-crossing substances are

what enters into form and are that ‘of which’ coming to presence (*physis*) consists. These flowing, malleable, plastic materials take on form not by having some external framework imposed on them, but by constituting forms in entering into them. Reciprocally, these elements are not external to their forms; rather, the way that the elements are fluid is that they are in continual unrest and so exist only in the process of entering into successive forms (and persisting, always temporarily, under the resulting forms). So fluid matter *is physis* as the process of ferment, change and growth by which forms arise; equally, *physis is* fundamentally *hyle*, *pace* Heidegger for whom ‘*morphe* – not just more than *hyle* but in fact alone and completely – is *physis*’ (ECP 222/290). While Irigaray thus sides with Antiphon in privileging matter over form, unlike Antiphon she finds no permanence in matter, only the dynamism that Heidegger finds in *physis*. The elements thus straddle – and, by straddling, undermine – the divide between beings and being as *physis*: the elements are material, but their materiality is to be in incessant movement and growth into form.

How does matter assume form? Attending to perceptible occasions when this happens, we find that formation results from original movement within matter – for example, the turbulence of water and air by which they enter into eddies and currents. Kristeva says something similar of ‘primal matter’ (*chora*): against Plato, she holds that *chora* is no passive receptacle but an original volatility and mobility that, of its own rhythmic movements, takes on form.^{xix} Presumably this explains how different forms become constituted: as matter stirs, jostles, it sifts itself into pockets with different qualities – more or less dense, fluid, solid, static, volatile, explosive, etc. The same volatility continues once matter has assumed form, causing it to shift its forms, stretch at their boundaries, pull different forms into contact then tear them apart. Thus when the beings that matter forms – beings, composed of *hyle*, that are physical (*étants physiques*), are bodies – impinge on one another’s boundaries they may rebound, recoil, or their matter may overflow its bounds so that these beings interpenetrate,

more or less temporarily or completely. These processes give rise to the ever-unfinished, ever-developing world.

Now, the ambiguities. For Irigaray, the fluid matters composing the world are the four (or more) elements as concretely perceived. We directly perceive these elements in their forms, as we see the sea in the waves, although the sea exceeds any particular wave formation. We apprehend, too, the concrete qualities that characterise these elements – water’s fluidity, clarity, density, coldness, etc. Likewise, the forms into which matter enters are concretely perceptible: the form of a deep, wide, slow-moving river, for instance. Rather than being invisible *hyle* appears, then, and is ‘the open itself – there is no need for opening or re-opening for one who has not forgotten its nature’ (FA 8/15).

Yet these claims seem to fit badly with the view of nature-subject relations implied by Irigaray’s critique of Heidegger. On that view, material nature preconditions subjects and their perceptions, which nature generates by virtue of its intrinsic character, its generative power. But this intrinsic character cannot be simply the same as the way that nature appears to concrete perception, for nature’s perceptible character arises only insofar as nature comes into (at least potential) relationship with perceivers. This is particularly so given the materiality of perception, as Irigaray understands it. Because all beings consist of formed matter, perceivers too are material beings, enjoying ‘the subsistence of a living body that draws its life from fluid materials’ (FA 83/78). We can only perceive on this basis, that of our corporeal and sensory forms – from our bodily location in space, for instance: *aperspectival* seeing is impossible. Only as this material body, corporeally interpenetrated by other things around me, can I apprehend those things – through light’s physical touch on my eyes, through the movements of air by which sounds reverberate in my ears.^{xx} Experience arises in this material interpenetration of bodies: ‘... the subject and the “things” [*choses*], “things” among themselves, are in a relation of interpenetration ... Passage between them, but also, in a

different way, between them and the living subject, happens by an immediate and instant penetration' (FA 84/79). 'Would being and thinking be made of the same *matter?*', Irigaray also muses, 'Of the same element? – which would explain their mutual attraction?' (FA 3/11).^{xxi}

Because perception arises in this material interpenetration of perceiving body with body perceived, the forms of the perceiving body – its sense-organs, situation, desires – contribute to perception. This seems to confirm that elemental matter cannot have intrinsically, prior to its having generated any perceptual relations, the same character that it presents to perception. Seemingly, then, fluid matters *are* as they present themselves to perception (as air, water, fire, etc.) under the concrete forms they show to perception (that of, e.g., a deep wide river), but also *are not* as they present themselves but rather have intrinsic characters that inescapably go beyond what is available to perception. Having stated this ambiguity, though, we can now see that it is revealing, not damaging. The ambiguity is itself given to perception: the elements and their concrete forms present themselves as being as they appear to us *and* as going beyond that appearance, harbouring further unknown features. Furthermore, from how the elements and their forms appear we can know something – not everything – *about* their intrinsic character. Because perception is an *interpenetration*, in which what is perceived is not passive, the intrinsic material character of elements and their bodily forms contributes to how they appear; their appearance is partially grounded in their intrinsic character. So, that intrinsic character must be such that it is possible for the elements and their forms to appear as they do. A thing must have the intrinsic character capable of contributing to its particular appearance: if air, water, or fire appear fluid and excessive to our grasp, part of the reason for that is that these elements really are volatile and mobile. If the concrete forms that we encounter appear to shift and change (a bud unfurls day by day; a flower dies day by day), this is partly because these forms really are phases in a process of

growth. And if things present themselves as composed of air, fire, water, etc., this is because things really have different levels of volatility, elasticity, density, etc.

Thus, through perception we can know something about the intrinsic make-up of things: that they are fundamentally composed of fluid matters continually growing into successive forms. We cannot know everything about how things are intrinsically, for their fluidity means that they always exceed our grasp and our desires, situation, etc. also contribute to perception. But, correlatively, the interpenetration of bodies that constitutes perception depends on bodies being permeable and so fluid, a fluidity that perceivers and perceived share. As such, the very fact that the perceiver contributes to perception is revealing of basic shared fluidity, again confirming that the world is intrinsically fluid.

Phenomenology, then, has an important role to play in disclosing the nature of the world as it is intrinsically, not only as it is directly perceived. Science, on its own, is not sufficient to account for the world's intrinsic nature. Rather, scientific abstraction from perception and concrete perception can and should inform one another. Science may tell us about the atomic structures of the elements, but perception tells us something about the more concrete yet still intrinsically real characters of the elements in which these atomic structures are instantiated: that they must have something of the fluidity, volatility, elasticity, etc., that we perceive in them.

As I have interpreted it, Irigaray's revival of the elements enables productive dialogue between perception and science – dialogue that ecophenomenology requires. In my interpretation, Irigaray's materialism also unites the two phenomenological strands discussed earlier: everyday realism about physical beings and attention to the deep temporal process subtending all existence. On the realist side, perception gives us (some) knowledge of beings in their perceptible appearance *and* in their intrinsic material character. On the process-

oriented side, this material character is to be in continual ferment, unstable, inexhaustibly productive, a character of which we can only ever know partially.

A potentially serious problem with Irigaray's elemental materialism, however, is her insistence on radical sexuate difference, to which I now turn.

4. Sexuate Difference Reconsidered

For Irigaray, we can only perceive as beings who both have and are our bodies, bodies that are made of material stuff. Fluid elements – mucous, blood, water – congeal into our organs, flesh, and bones and pull these forms together to constitute our living bodies. Since our bodies constitute how we perceive, and our bodies are sexuate (*sexué*), it follows for Irigaray that we inescapably perceive as sexuate beings, in ways coloured and affected by our sexuate powers and structures. But how deeply does our sexuation shape our perception?

In her recent work Irigaray has increasingly emphasised that our sexuation does not merely qualify perception but shapes it so fundamentally that men and women inhabit different 'worlds'.^{xxii} This claim, I will argue, is problematic: Irigaray overestimates the impact of sexuation on perception, and fails to question whether societal gender norms have amplified this impact beyond what it would otherwise be. We need to consider how far this problem damages Irigaray's materialist contribution to ecophenomenology.

The difference between sexuate worlds, Irigaray maintains, is that women are oriented more towards relations with other subjects than with objects and men, conversely, more towards objects than subjects.^{xxiii} Women prioritise intersubjectivity, men subject-object interactions such as tool use or object manipulation. By speaking of different 'worlds', Irigaray suggests that these orientations exert a global effect on perception, shaping along different lines the entire way that men and women experience. These different orientations lead us to find different elements of the world salient and attractive or insignificant and

repellent, and to find different meanings in the same situations. For a woman, a half-empty cup found in a room might furnish a reminder of her daughter; for the woman's husband the same cup might be a messy item needing to be moved into the kitchen. The different patterns of activity that result for men and women sediment into distinct repertoires of habit, reinforcing the initial impact of sexuation on perception. Overall, for Irigaray, these differing orientations structure desire, intentionality, anticipation, and habit along dual lines, pervading our embodied perception so deeply that, she says, sexuate difference is ontological, not ontic.^{xxiv}

Irigaray provides a phenomenological justification for these views. First, phenomenology discloses the body's fundamental ambiguity, whereby the sexuate bodies that we have (as *Körper*) are also the bodies (*Leiber*) that we as perceivers are, so that the living structures of our bodies constitute, not merely qualify, how we perceive.^{xxv} Yet it is not immediately evident that every single bodily structure exerts an equally constitutive influence on perception. Here, second, Irigaray maintains that it is immediately evident to perception not only that we have sexuate bodies but also that we perceive in sexually distinct ways – at least, if we can suspend inherited false assumptions about subjectivity being gender-neutral. In that case, we can directly perceive that our sexuate bodily structures do constitute how we experience.

This exposes a potential fault line between phenomenology and feminism. If our experience is indeed polarised along sexuate lines, plausibly this is because of the binary gender norms that are institutionalised in our society. These norms constrain how we act and experience, causing us to become more sharply sexually polarised than we would otherwise be. Arguably, then, what Irigaray treats as directly evident – that our perceptions, desires, habits diverge along sexuate lines – is only given to perception because society has first *made* it a reality. The worry here is that phenomenological attention to perceptible givens may

discourage explanation and critique of how these givens have come about – i.e. through social forces that can be changed.

Arguably, another effect of society's binary gender norms is that we learn to perceive one another to be sharply sexually differentiated. We become habituated to overlook the myriad occasions when people diverge from and blur the binary divide, and attuned to find salient the actions and expressions that conform to the divide. So, again, it is plausible that the sexuate worlds that (Irigaray holds) are given to perception are actually given only because societal norms have first trained us to find them. Our perception of sexually divided worlds is learnt, not spontaneous; and, rather than comprising a source of pre-theoretical certainty, this perception actually distorts the perceptible evidence of bodily plurality that overflows the binary norm.

However, the very fact that this corporeal diversity *is* perceptible if we can train ourselves to bracket assumptions about binary gender shows that phenomenology can work together with and need not discourage suspicion of binary gender norms. When we practise suspicion towards these norms, we re-learn to apprehend the corporeal diversity that is there to be perceived but which binary norms have trained us to overlook. Moreover, this perceptible diversity need not entail that sexuate differences between bodies and forms of experience are *merely* artefacts of binary gender norms. Irigaray's work provides a salutary reminder of the perceptible differences between our sexuate forms and powers: in particular, women of child-bearing age can generally carry, bear, and breast-feed babies as men cannot. These differences are not wholly effects of social construction – after all, they are continuous with similar differences running through much of the mammalian world. Our somatic plurality must therefore be consistent with sexuate difference existing, to some extent, independently of society. The two can indeed be consistent if sexuate difference is not intrinsically a sharp, polarised divide and if its expansion into a sharp polarity that excludes

somatic diversity *is* an effect of social norms. Without that amplification, the ways that men and women experience and act will often overlap; there will be wide variations within the forms of experience that women have and within those that men have; some women will experience in a way more similar to some men than to some women, and reciprocally. The more we learn to look beyond binary gender norms, the more we will find evidence that where sexuate difference exists it takes this non-polarised form. But in that case we should not expect direct perception to evidence a radical difference in sexuate worlds.

Indeed, that perception does *not* furnish such evidence (despite the influence of binary gender norms) is implied by Irigaray's own claim that women prioritise intersubjectivity and men subject-object relations. This claim presupposes that men and women alike apprehend the world as populated by both subjects and objects. For Irigaray, men and women differ in which of these axes they find more significant and salient; but to prioritise one axis over the other, women and men must both perceive both objects and subjects and weight each axis differently. By implication, sexuate difference in experience is a difference in the levels of *emphasis* that men and women give to subjects and objects, thus a difference of *degree*, not kind. But if the difference is one of degree, then we would expect some women to adopt an orientation closer to that of some men, whilst other women and men will be further apart – so that the differences between women will sometimes exceed those between men and women. Sexuate difference is not a sharp line.

Similar conclusions follow from Irigaray's elemental materialism. Air, she tells us, is 'the *universal* matter of the living'.^{xxvi} We all breathe; we can remain alive only while we remain in continuous, unbroken contact with air – drawing air in, returning air out. To be born, to enter into the shared world, is to begin breathing, living in the air, and with it to begin communicating with others through the perturbations of air that constitute sound. The newborn infant takes its first breath and generally, with it, its first cry. Only as breathers, then,

do we perceive and share the world. Other elements are likewise vital for our being. Our bodies are composed of up to 80 percent water; water is a component of the blood, mucous and other fluids that, as they circulate (carrying air) and congeal, continuously form and reform the body's physical structures. All these elements of the material composition of our bodies are, according to Irigaray's own materialism, shared between the sexes.

Irigaray sometimes acknowledges this sharing by identifying air, water and other elements as factors that mediate between men and women, bringing them into alliance and permitting passage across their difference.^{xxvii} But if air mediates, it does so by virtue of being shared, circulating between men and women – and, as it circulates, air cannot remain external to the bodies that breathe it in and out, because these bodies are fluid too. When air is drawn in, it interpenetrates a body, percolating through its boundaries and thresholds, feeding into its structures and processes. Thus each of us *is*, in part, the air that we breathe, along with the other fluids of which we are made. If air serves a mediating function, then, its very way of doing so – by interpenetrating bodies seamlessly – means that it provides men and women with a common material element.

Thus, Irigaray's view that universal matters compose the world by entering into various more-or-less transient forms implies that there is a basic material continuity between men and women. Their differences in sexuate somatic structure arise as different *forms of* this shared elemental materiality – for bodily forms, after all, are forms of matter. Thus, from Irigaray's elemental materialist perspective, sexuate difference presupposes a shared background of elemental matter.

This undermines Irigaray's claim that the sexes occupy different worlds, for some of the corporeal processes and structures that constitute perception are sexually shared. Breathing, for one, constitutes how we perceive. As we saw earlier, we perceive bodies against the background of the whole world. But a fundamental part of the way that we

experience the world as one single whole to which all bodies and perceivers belong is by breathing its air, an all-pervasive medium that threads all beings together. Although it goes largely unnoticed, then, our continuous vital contact with air helps constitute the entire shape of our experience. But since air and breathing are common to all human bodies, the corresponding structural features of human experience – such as the sense of the world as a single whole – are also shared by men and women.

Irigaray's strong claim about dual sexuate worlds is actually in tension with her elemental materialism, which supports a more moderate view of how far sexuation affects perceptual experience. On that view, sexuate differences qualify perception but do not divide it radically, because shared perceptual structures – such as the role of breath in mediating how we inhabit the shared world – result from men's and women's bodily constitution from the same elemental matters. We can therefore embrace Irigaray's elemental materialism without having to endorse her problematic belief in dual sexuate worlds. Once extricated from that problematic belief, Irigaray's materialism deserves to be developed further, for it does important work in rethinking basic ontological issues in a way that addresses the ecological crisis.

ⁱ I thank Simon James and Tanja Staehler for their very helpful comments on an earlier draft.

ⁱⁱ I take this thesis to be consistent with Husserl's diagnosis of the crisis of the European sciences – a crisis that for him arises because we have mistakenly come to identify the quantitative, modern scientific account of the world (derived from sense-qualities by abstraction) as the whole truth. See Husserl, *The Crisis of European Sciences and Transcendental Phenomenology*, trans. D. Carr, Evanston: Northwestern University Press, 1970.

ⁱⁱⁱ So David Wood argues in ‘What is Eco-Phenomenology?’, in *Eco-Phenomenology: Back to the Earth Itself*, ed. C. Brown and T. Toadvine, Albany: SUNY Press, 2003, p. 211ff.

^{iv} Brown and Toadvine, ‘Eco-Phenomenology: An Introduction’ in *Eco-Phenomenology*, op. cit., p. xii.

^v This may seem surprising, since Husserl affiliates phenomenology with transcendental idealism, the view that objects are (from the transcendental perspective) phenomena, in that their structures derive from the constituting activities of the transcendental subject rather than obtaining mind-independently. However, I am only pointing to a strand that opens up within Husserl’s work and that inclines against his overall idealism.

^{vi} Thus, Husserl writes, ‘Experience is the performance in which for me ... experienced being “is there”, and is there *as what it is*’; *Formal and Transcendental Logic*, trans. D. Cairns, The Hague: Nijhoff, 1969, p. 233.

^{vii} Merleau-Ponty, *The Phenomenology of Perception* (hereafter cited parenthetically as PP), trans. C. Smith, reprint edn., London: Routledge, 2002, p. xviii.

^{viii} This is distinct from other strands along which phenomenology is ontological, such as Sartre’s view that consciousness opens directly, transparently, onto brute being, or Husserl’s 1927 *Encyclopaedia Britannica* position that phenomenology is ontological in that it is the science ‘not merely of the totality of objectively existing beings, [but of] ... being in general which derives its sense of being ... from the correlative intentional constitution’ (in *The Essential Husserl: Basic Writings of Transcendental Phenomenology*, ed. D. Welton, Bloomington, IN: Indiana University Press, 1999, p. 333).

^{ix} Bruce Foltz claims that *physis*, self-emergence, is just one of eight primordial features of nature, yet that it is only in light of *physis* that all these other features can be apprehended, so that *physis is* nature apprehended phenomenologically (Foltz, *Inhabiting the Earth*, Atlantic

Highlands, NJ: Humanities Press, 1995, p. 125); while, he claims, *physis* also ‘characterizes being as such’ (p. 147; see also p. 13).

^x ‘The rose does have no why [*ist ohne warum*]; it blossoms without reason’; Silesius, *The Cherubic Wanderer: Classics of Western Spirituality*, trans. M. Shradly, Mahwah, NJ: Paulist Press, 1986, p. 54. Heidegger analyses this verse in his 1955-6 lecture course *The Principle of Reason*, trans. R. Lilly, Bloomington, IN: Indiana University Press, 1996. For discussion, see John D. Caputo, *The Mystical Element in Heidegger’s Thought*, reprint of the 1978 edn, New York: Fordham University Press, 1986.

^{xi} Heidegger, ‘On the Essence and Concept of φύσις in Aristotle’s *Physics* B, I (1939)’ in *Pathmarks*, ed. W. McNeill, Cambridge, UK, Cambridge University Press, 1998, p. 212; ‘Vom Wesen und Begriff der φύσις Aristoteles, *Physik* B, I’, in *Gesamtausgabe* I: 9, Frankfurt: Klostermann, 1976, p. 276. Hereafter cited parenthetically as ECP with German pagination after English.

^{xii} Irigaray, *The forgetting of air in Martin Heidegger*, trans. M. B. Mader, Austin, TX: University of Texas Press, 1999, p. 5; *L’oubli de l’air*, Paris: Minuit, 1983, p. 12. Hereafter cited parenthetically as FA with French pagination after English. I sometimes amend the translation without special notice. I do not capitalise being (*l’être*) but include the French terms to distinguish being from beings (*étants*).

^{xiii} Fielding, ‘Questioning Nature: Irigaray, Heidegger and the potentiality of matter’, *Continental Philosophy Review* 36 (2003), p. 3.

^{xiv} On Antiphon see Aristotle, *Physics*, trans. R. Hope, Lincoln, NE: University of Nebraska Press, 1961, 193a10-25.

^{xv} So Quentin Meillassoux puts it; *After Finitude*, trans. R. Brassier, London: Continuum, 2008, p. 8.

^{xvi} For Aristotle, the roles of female and male in reproduction correspond to those of matter and form in general ontology – or, as wood and carpenter are to table, so are female and male to reproduction. See *Generation of Animals*, Cambridge, MA: Harvard University Press, 1953, 729b12-18.

^{xvii} S. Alaimo and S. Hekman, ‘Introduction: Emerging Models of Materiality in Feminist Theory’, in *Material Feminisms*, Bloomington, IN: Indiana University Press, 2008, p. 4ff.

^{xviii} See, respectively, E. Grosz, *The Nick of Time: Politics, Evolution and the Untimely*, Durham, NC: Duke University Press, 2004, E. Wilson, *Psychosomatic: Feminism and the Neurological Body*, Durham, NC: Duke University Press, 2004, K. Barad, *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*, Durham, NC: Duke University Press, 2007.

^{xix} Kristeva, *Revolution in Poetic Language*, trans. M. Waller, New York: Columbia University Press, 1984, p. 26.

^{xx} See C. Vasseleu, *Textures of Light: Vision and Touch in Irigaray, Levinas and Merleau-Ponty*, London: Routledge, 1998.

^{xxi} These musings recall Merleau-Ponty’s concept of flesh, which interweaves thinking and thought. Irigaray is indeed informed by the concept, which she discusses – critically – in *An Ethics of Sexual Difference*, trans. C. Burke and G. C. Gill, Ithaca, NY: Cornell University Press, 1993, pp. 127-153. She criticises Merleau-Ponty on the grounds that flesh provides a surreptitious substitute for the maternal body, ‘holding’ the perceiver as the maternal womb once did.

^{xxii} See, e.g., *Why Different?: A Culture of Two Subjects*, ed. S. Lotringer, New York: Semiotexte, 2000, p. 85; ‘Why Cultivate Difference?’ in *Paragraph 25*: 3 (2002), p. 82.

^{xxiii} See, e.g., *Conversations*, Continuum, 2008, pp. 24-25. Here Irigaray also speaks of an 'economy of relations to the self, to the world and to the other specific to woman or to man', p. 13.

^{xxiv} 'Je-Luce Irigaray: A Meeting with Luce Irigaray', interview with E. Hirsh and G. A. Olson, *Hypatia* 10: 2 (1995), p. 110.

^{xxv} This is Wood's formulation: 'What is Eco-Phenomenology?', p. 212.

^{xxvi} *I Love to You*, trans. A. Martin, London: Athlone, 1996, p. 148.

^{xxvii} For example in *The Way of Love*, pp. 67-68.