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Pre-Socratic Media Theory

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Abstract
Drawing inspiration from Siegfried Zielinski's ground-breaking study of media archaeology, **Deep Time of the Media**, this paper explores the potential for pre-Socratic philosophy to provide a model for alternative conceptions of mediation within contemporary media art. It argues that pre-Socratic philosophy develops notions of mediation that extend beyond the contemporary focus on technical media. In their exploration of fundamental dynamic principles within nature and in their sensitivity to the uncertain relation between truth, appearance and finite human understanding, they suggest diverse conceptions of mediation that have continuing critical and creative relevance.

Keywords
Pre-Socratic Philosophy, Mediation, Media Art

Introduction

In his **Deep Time of the Media**, German media theorist, Siegfried Zielinski, explores "the rich history of seeing, hearing, and combining using technical means" (Zielinski, 2006: 34). He focuses on what he terms "curiosities" – charged indices of invention that point "beyond the meaning or function of their immediate context of origin" (Zielinski, 2006: 34). The various curiosities indicate sites of unrealized potential; they represent, for Zielinski, not primitive stages in the development of media, but inspiring possibilities for contemporary experimentation. One of the first chapters considers the relevance of the pre-Socratic philosopher Empedocles' conception of the dynamic interaction between natural things and the contemporary notion of the media interface. My aim in this paper is to review Zielinski's argument, focusing specifically on his efforts to tease out a technical conception of media from Empedocles' more integrated and cosmological vision. In my view, Zielinski's emphasis on the technical apparatus tends to overlook broader and more fundamental questions of mediation within pre-Socratic thought. The pre-Socratics' abiding concern with issues of ontology, truth, unity and differentiation reveals a notion of mediation that extends beyond the necessity of technical relay. In this regard, it may have some relevance for thinking through currents of change within

contemporary media – especially as the traditional concern with novelty, artifice, speed, scale and complexity is unsettled and perhaps displaced by an emerging concern with immediacy, mobility, reduction, engagement and integration.

As will quickly become evident, I am not an expert in pre-Socratic philosophy. I have relied upon a very standard set of English translations and secondary and tertiary sources (chiefly Barnes, 1987 and Guthrie, 1962) to develop my understanding of the tradition. The distinguishing feature of my approach, drawing upon the model of Zielinski, is the effort to discern conceptions of mediation within pre-Socratic thought and to consider their relevance towards re-thinking aspects of contemporary media (particularly within the context of media art). I am not suggesting that pre-Socratic thought speaks directly to contemporary media (and media art), but rather that it provides a lateral perspective on contemporary issues and questions.

Empedocles and the Technical Media Apparatus

Pre-Socratic philosophy (6th - 4th Century BC) constitutes a key moment in the development of Western science and philosophy. During this period, according to Barnes (1987: 16) and Guthrie (1962: 1-3), ancient Greek mythological explanations of the world gave way to emerging strands of empirical observation and logical argument. The pre-Socratic thinkers posed the fundamental questions of origin, cause and being that have informed Western scientific and philosophical thought ever since. They addressed not only the broad shape of the universe, but also its fundamental stuff, structure and logic. Many factors contributed to this new perspective, from conditions of relative wealth and political stability to an acceleration of cultural exchange (especially with Eastern traditions) (Barnes, 1987: 14-15, Guthrie, 1962: 29-32, McEvilley, 2002). It is well known that very little of the pre-Socratic tradition remains intact. We are left with fragments and secondary accounts. This lends the tradition an appealing epigrammatic intensity. The continuing fascination of pre-Socratic thought is closely linked to the way which it combines the vivid and the metaphysical, the familiar and the distant, the lucid and the obscure.

Empedocles appears as a late figure in the tradition. The first group of pre-Socratic thinkers had made bold statements about the nature of things. Thales (624-546 BCE)

argued that everything is made of water. Anixmander (610-546 BCE) suggested that all specific things were born from the infinite. Heraclitus (535-475 BCE) insisted upon primordial fire and hence, at the metaphysical level, the primacy of dynamic conflictive and differential relations over any notion of stable, permanent being. Parmenides (510-440 BCE) rejected these natural metaphors and asserted the priority of logic. Rather than describing the nature of being in terms of a perceptible root element, Parmenides posited a monistic view of the cosmos. He affirmed the singularity of being and argued that the concept of nothing (non-being) was a logical contradiction. Very significantly, his notion of homogenous being entailed abandoning any thought of development, motion and multiplicity. From Parmenides' metaphysical perspective, there was (is) only the undifferentiated and eternal One.

Within this context, the philosophy of Empedocles represents an effort to reconcile the earlier currents of pre-Socratic philosophy with the austere logical reduction of Parmenides. Empedocles agrees with Parmenides (and Heraclitus) that nature is un-generated and eternal. He also accepts, with Parmenides, that it can adopt the form of an undifferentiated whole, but argues that none of this need contradict the perceptible reality of dynamic natural processes. Shifting away from a purely metaphysical and logical conception of being, Empedocles adopts a cyclical view. The cosmos takes shape in terms of an eternal alternation between the forces of Love and Strife (further complicated by relations of Chance and Necessity). When Love prevails then all matter comes together into a unified, undifferentiated whole (symbolized by the form of a sphere), but then just as quickly, through Strife, it breaks apart into the multiplicity of different things. Nature and the cosmos represent then an endless passage between unity and differentiation. The process of alternation is facilitated by four root elements: earth, air, water and fire. All specific things are products of the relations between these fundamental elements, and all things are attracted to, and repulsed by, other things in terms of their underlying elemental constitution. Their mingling and communication are conceived in terms of effluences, pores and affinities. So rather than imagining the material autonomy of particular things, Empedocles regards all matter in terms of a constant process of porous exchange.

It is this scene of exchange that interests Zielinski, particularly as it entails a theory of perception. Here perception is cast as an objective phenomenon. It takes shape as a natural relation of attraction or repulsion, correspondence or disengagement. Material things physically and intimately interact. They brush up against one another, engaging or disengaging with each other's effluences on the basis of their underlying elemental predispositions. For Empedocles, this is mediated by the surface character of things – by porous skins, which both release and receive material effluences. It is precisely in this conception of a concrete perceptual apparatus that Zielinski recognizes a model of mediation and the media interface. However, Zielinski suggests that this model is incomplete. It is not properly mediated because it involves a literal, direct material relation between things,. Zielinski draws upon the thought of the still later pre-Socratic philosopher Democritus (460-370 BCE) to add the two remaining (modern) ingredients: an intervening space of separation; and a neutral agent of exchange.

Objecting to Parmenides, Democritus argues that being and non-being exist equally. Non-being takes shape as the void between existent things – a space that opens up all possibility for movement. Moreover, Democritus asserts a radically multiple notion of being. Instead of a world of self-sufficient and autonomous things, Democritus argues that everything is composed of innumerable and imperceptibly small atoms. The atoms represent the positive character of being. They gain their distinctive identity and potential for motion in relation to the dimension of non-being that surrounds them. The void provides the necessary habitat for the multiplicity and animation of being. In this manner, Democritus' atomistic theory provides the two missing ingredients from Empedocles' conception of perception: the void enables a space of separation; while the atoms provide a neutral carrier of information. According to Democritus, the perceptible effluences of individual things produce impressions ("idols") on the surrounding atoms, which then become the vehicle for conveying flows of perceptible information to other things.

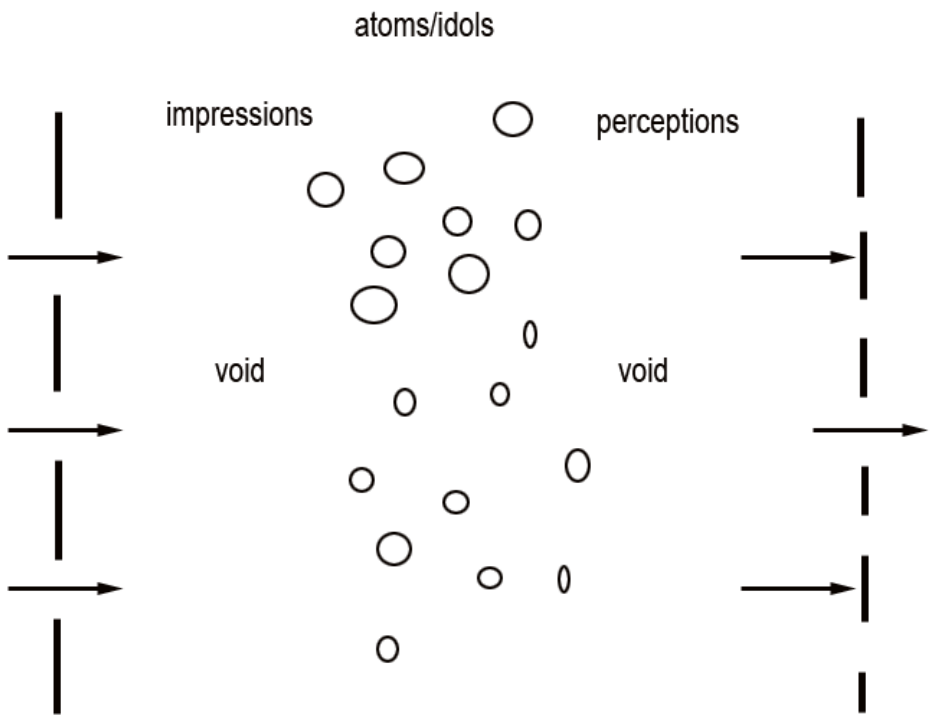

Fig. 1: Democritus model of mediated perception

Overall then, Zielinski combines the thought of Empedocles and Democritus to arrive at a model of mediated perception that bears a clear resemblance to features of contemporary technical media. We can, for instance, map this conception to Shannon and Weaver's famous Mathematical Model of Communication (1949). We have a Source in the shape of specific perceptible thing, a Transmitter in the sense of the porous skin that releases and receives direct effluences or indirect atomic impressions, a Channel in the shape of the void and the impressionable atoms, a Receiver cast as the receptive dimension of porous matter, and finally a Destination, which refers to the material and non-subjective interiority of the perceiving thing. Of course, the ancient model lacks a specific concern with issues of message entropy (noise), but it has very modern relevance in terms of the emphasis on a technically defined perceptual apparatus. A remaining issue, however, is that it does not define an explicitly technical apparatus. The pre-Socratic model of perception functions within nature (*physis*), rather than as a consequence of artificial making (*techne*). Zielinski emphasizes this point:

> In actual fact, Empedocles' theory of pores renders the construction of any interface superfluous. The porous skins are ubiquitous; they are material elements of all things and people and thus move with them. Every person and every thing has received this gift. Democritus introduced a medium, and thus a third quantity, wherein one can contemplate the "idols", or simulacra, including their truth. With Democritus, though, one can imagine that, in the future, more artificial interfaces will have to be constructed in order to bridge the chasm that currently exists between being and appearance. (Zielinski, 2006: 55)

The pre-Socratic model gains significance for Zielinski precisely inasmuch as it anticipates the subsequent development of artificial perceptual interfaces (media). At the same time, however, its status as a curiosity hinges, as we have seen, on its heterological character – its potential to open up alternative insight into the dynamic material character of media relations. Zielinski preserves a delicate balance between these strands of resemblance and difference. My concern, however, is that the emphasis on discerning features of modern technical media in pre-Socratic thought ends up neglecting more fundamental issues of mediation within the tradition.

Integral Mediation

For me, the potential contemporary relevance of the pre-Socratic thinking of mediation is that it highlights a play of mediation within the texture of nature (*physis*). Rather than depending upon any work of ostensible technical artifice (*techne*), issues of media and mediation affect the self-identity of being. This has relevance in terms of developing a more nuanced conception of contemporary media, one that is not primarily focused on the traditional dramaturgy of technological alienation, but that is open to new possibilities of mobility, intersection, reduction and integration. This is by no means to envisage the seamless incorporation of media within some amorphous conception of living being, but on the contrary to suggest that media is not alone in its play of separation, distance and division. The disruption of media is integral to the thinking of being itself (rather than an external technological imposition). Here I draw inspiration from Heidegger's examination of the philosophical underpinnings of the notion of technology. Heidegger questions the nature of technology and argues that it is an expression of a more fundamental existential dilemma. Linked to a complex history of thinking concerning the

nature of making and revealing, technology serves as a contemporary sign of the essential work of displacement and disguise within the conception of being.

> The question concerning technology is the question concerning the constellation in which revealing and concealing, in which the coming to presence of truth comes to pass. (Heidegger, 1978: 315)

The contemporary value of pre-Socratic philosophy lies precisely in its capacity to reveal these relations, to demonstrate that the question of media extends beyond the need to envisage a technical apparatus, that it is inherent within the question of the identity and manifestation of being.

The pre-Socratic thinking of essentially mediated being has two dimensions. The first involves how the nature of being is conceived. The second involves how this conception is made manifest. The first relates to the question of the *arche* (the origin and underlying generative principle of the cosmos) and the second to the question of the *logos* (the account of the nature of being).

Arche

We have seen that Empedocles conceives the cosmos as a dynamic cycle of elemental relations. In this sense, the fundamental feature of being is less some specific tangible stuff than a constant interplay of material forces. The *arche* of being is cast not as a singular and self-similar quantity, but as a motion of mediation. This sense of fundamentally mediate being is even more strongly evident in the thought of Heraclitus, who posits a radically differential conception of the cosmos. If he speaks of fire and war it is less to designate substantive existential essences than to insist that the notion of essence is radically problematic. The primary character of being is flux, self-division and conflictive mediation. In a less pointed manner, Thales' *arche* of water is also indicative of a terrain of mediation. Water is positioned as both a cosmic habitat and as a (literally) seminal generative force. Water describes an active principle that gains significant identity in the processes of life that it engenders. Its importance hinges on its capacity to enable fecund relations – to provide a medium for, and to mediate, life. In this sense, the whole concept of an *arche* necessarily involves a thinking of mediation, of the dynamic relations that structure the nature of the cosmos.

At the same time, however, there are strands of pre-Socractic philosophy that resist this mediate conception of the *arche*. Parmenides' notion of an unmoving, undifferentiated whole provides the clearest example. Yet even in Parmenides – if not in his stern metaphysical vision then in his poetic account – a paradoxical thinking of mediation is evident. The truth of logical singularity must, somehow, become manifest. In the gap between logic and its conceptual recognition, strands of inspiration, induction and deduction intersect. The *logos* itself then is affected by dimensions of mediation.

Logos

Heraclitus is the first of the major pre-Socratic thinkers to speak of the *logos*:

> Of this account [*logos*] which holds forever men prove uncomprehending, both before hearing it and when they first have heard it. For although all things come about in accordance with this account [*logos*], they are like tiros as they try the words and the deeds which I expound as I divide up each thing according to its nature and say how it is. (Barnes, 1987: 101)

Heraclitus plays upon the complex meanings of *logos* within ancient Greek. Here it refers both to his spoken/written account of the nature of things and also to the underlying logic that shapes natural processes. The notion of the *logos* engages then the fundamental problem of the relationship between the self-identity of truth and its mediated representation, particularly with how philosophy can lay claim to truth. I cannot hope to address this topic adequately here, but for my purposes the key point is that the issue of mediation, which involves the uncertain relation between truth and its philosophical manifestation, is evident at the very outset of Western philosophy, and without the need to describe a specific technical apparatus.

There are many paradoxes associated with the *logos*. These paradoxes hinge on the incommensurable relation between the sphere of necessarily limited human knowledge and the infinite scope of the cosmos. Drawing on the rhetoric of traditional cosmology (as evident, for instance, in the proto-philosophical cosmogony of Hesiod, 8th Century BCE), Parmenides describes a mythological basis for his access to the *logos*. He relates how he learns the true nature of things via an encounter with a goddess on the portal between Day and Night. It is a metaphoric space that represents the suspension of

ordinary common-sense oppositions (Gallop, 1984: 7). It would also seem to paradoxically indicate that the *logos* owes a substantial debt to the apparently negative force of the Night (the goddess emerges from the House of the Night and speaks of things that exceed mortal perception). The encounter with the goddess serves as a means of signaling a metaphysical dimension of truth, but apart from this poetic-mythological conceit, how is Parmenides to distinguish the veracity of his account? One passage from his philosophical poem seems particularly indicative of the perceptual, conceptual and metaphoric difficulties:

> Only one story [logos], one road, now is left: that it is. And on this there are signs in plenty that, being, it is ungenerated and indestructible, whole, of one kind and unwavering, and complete. Nor was it, nor will it be, since now it is, all together, one, continuous. (Barnes, 1987: 134)

At one level then there is the singular, eternal and homogenous truth and then there are the multiplicity of signs that point to it. The philosophical narrative (*logos*) escapes direct perception and apprehension; it is evident only by an experience that is manifestly different and intrinsically differentiated. My aim here is less to question the possibility of metaphysical unity than to emphasize that issues of mediation affect pre-Socratic philosophy at its very basis. There are gaps, spacings and dimensions of mediating agency that need not take a specifically technical form. It may even be that the transposition of these dilemmas into technological terms represents a means of stepping aside from their implications, of displacing an internal motion of splitting and differentiation into a safely exterior form.

Beyond Narrowly Technical Conceptions of Media

In his introduction to *Deep Time of the Media*, Zielinski acknowledges that the interest in technical media is very much a 20th Century concern. He predicts that in the 21st Century media will become like air or water – so much "a part of everyday life" (Zielinski, 2006: 33) that they will cease to be a central focus of concern. The pervasiveness of media and their incorporation in every dimension of human activity is likely to alter the way we think about and imagine media. If the emphasis was once upon the wonder (and horror) of novel media mechanisms, especially upon their capacity to enable various forms of technologically framed experience (mass behaviour, cybernetic participation, ideological interpellation, sensory amplification, visual simulation and kinaesthetic immersion), now things are couched in less dramatic and antagonistic terms. Within this context, the pressing motivation for Zielinski's study is "to undertake field research on the constellation that obtained before media became established as a general phenomenon" (Zielinski, 2006: 33).

For my purposes, pre-Socratic thought provides an oblique vehicle for imagining a non-techno-centric conception of media. In its central concern with a dynamics of mediation within nature and with the medial paradoxes of perception, cognition and truth, it offers a speculative model for re-thinking media in terms of wider contexts of experience and interaction. My particular interest is in exploring the relevance of pre-Socratic thought for describing emerging tendencies in media art. While media art has always been a diverse field, incorporating everything from massive Art-Science projects to critical-conceptual net and software art, the focus has tended to be on the former - on large-scale, techno-centric media art associated with exhibition contexts such as ZKM, Ars Electronica and ISEA. However, there seems to be a growing orientation towards more technologically modest and contextually oriented projects. Instead of summoning brave new orders of mediated experience, significant strands of contemporary media art sketch relations with the natural and social world. Rather than trading on the rhetoric of technological innovation, they explore elements of anachronism, reduction and alchemical transformation. Some factors contributing to this change include greater technical literacy amongst media artists (so that they no longer depend upon partnering with scientists and technicians to realize their creative concepts), a renewed critical

concern with the social and environmental implications of 'big' media and an increasing level of conceptual-artistic sophistication (evident in the integration of media art within broader traditions of critical avant-garde practice).

Of course it would be absurd to suggest that pre-Socratic thought can provide a coherent account of directions within contemporary media art or that it can serve as a blueprint for new forms of media art (low tech/no tech, mobile, locative, physical, bio, etc.). For me, very much as Zielinski argues, it serves as a curious and indirect basis for envisaging alternative media possibilities. If a shift beyond the techno-centric conception of media is evident, it is certainly not happening in a simple, unequivocal fashion. There are inevitable dimensions of ambiguity and contradiction. In this respect, rather than trying to recognize pure instances of technological displacement or overcoming, it may be better to consider how this counter-tendency appears as a tension within the tradition of media art itself. In the place then of a detailed discussion of emerging tendencies, my aim in the remainder of this paper is to very briefly consider three pieces of classical electronic/new media art that reveal dimensions of post-techno-centric possibility.

Aeriology, Joyce Hinterding (1995)

Aeriology transforms architectural spaces (galleries) into very low frequency (VLF) antennas. The spaces are wrapped with many kilometers of copper wire that pick up inaudible frequencies via magnetic resonance. Hinterding explains that the project focuses on opening up an "energetic exchange with the upper atmosphere" (Shanken, 2009: 113). While the gallery visitor is clearly enmeshed in a large-scale and technologically constituted experiential framework, the technology itself is very simple and appears as an electrical, quasi-elemental vehicle for engaging wider elemental forces. Hinterding describes the apparatus as "a machine for a *techne* of the invisible" (Shanken, 2009: 113). It is this emphasis upon a reconstituted machine – one that is oriented towards technical simplicity and a sympathetic relation to natural (imperceptible) dynamic processes – that is suggestive of another, less technically focused conception of media.

Autopoesis, Ken Rinaldo (2000)

Autopoesis is a kinetic sculptural installation, employing fifteen suspended robot arms that respond to one another and to gallery visitors. The work is centrally concerned with issues of artificial life and emergence. The underlying networked programmatic system facilitates a measure of creative behavioural adaptation. Described in these terms, the work seems to fit very much the standard mould of immersive and techno-centric electronic/new media arts installation, yet at least one element of the sculpture points in a different direction. The robotic arms are made of dried grape vines. Rather than bright and shiny mechanical devices, the arms are constructed of simple materials that engage a dialogue between the low-tech/handmade and the electronic, as well as, more broadly, between the natural and the artificial. In this manner, the emergent openness of the system extends beyond the obvious technological framework to suggest other possibilities for re-conceiving the relationship between *physis* and *techne*.

Uncle Roy All Around You, Blast Theory (2003)

Uncle Roy All Around You is mixed-reality game in which street players interact with virtual players via a sophisticated integration of mobile device communication and networked surveillance and simulation technologies. A product of a major Art-Science collaboration between Blast Theory and the Mixed Reality Lab, Nottingham University, the work explores layers of tension and uncertainty that arise when real and virtual social interaction and game-play are juxtaposed. Participation takes shape in a liminal zone in which human encounter and technological alienation become indistinguishable. At the very end of the game participants are posed an ethical question that seems to play at the limits of the technical infrastructure and game-play (and to gesture beyond them): "Are you willing to make a commitment to [a stranger] that you will be available for them if they have a crisis? The commitment will last for twelve months. In return, they will commit to you for the same period." (Shanken, 2009: 137). This final maneuver involves an opening and a risk. It demands both a trust in mediated social relations and an absolute commitment to something which exceeds them.

Overall, each of these three examples obeys the paradigm of techno-centric media art, yet also reveals dimensions and interests that extend beyond the technical. They solicit a

dialogue with broader sets of social and material relations and, in this manner, project wider possibilities of mediation.

Conclusion

This paper has adopted a deliberately very speculative approach. It has attempted to tease out an alternative conception of media from strands of pre-Socratic philosophy. It has argued that the genuinely heterological character of the pre-Socratic conception is linked firstly to its focus on dimensions of mediation that are constituted in natural and non-technological terms and secondly to its emphasis on the problematic relation between truth, appearance and telling. In my very brief discussion of the relevance of this conception towards rethinking aspects of contemporary media art, I have focused on discerning strands of practice that motion ambivalently beyond conventional techno-centric concerns. I have said less, however, about the implications of the pre-Socratic notion of the *logos*, specifically of how the paradoxes that affect our perceptual and conceptual relation to truth can inform contemporary media art practice and theorization. I cannot do justice to this issue here, except to make a single point. In attempting to think beyond exclusively technical notions of media, there is the danger of assuming that the problem of mediation simply disappears – that a new immediacy is possible. The paradoxes of the logos provide a reminder that mediation retains its force even without the intervention of porous skins, atoms and void.

References

Barnes, J. (ed.) (1987) *Early Greek Philosophy*. England, Penguin Books

Gallop, D. (1984) *Parmenides of Elea*. Toronto, University of Toronto Press

Guthrie, W.K.C. (1962) *A History of Greek Philosophy, Volume 1, The Early PreSocratics and the Pythagoreans*. Great Britain, Cambridge University Press

Heidegger, M. (1978). 'The Question Concerning Technology', in Krell, D. F. (ed). *Martin Heidegger: Basic Writings*. London, Thames & Hudson

McEvilley, T. (2002) *The Shape of Ancient Thought*. New York, Allworth Press

Robinson, T.M. (1987) *Heraclitus: Fragments*. Toronto, University of Toronto Press

Shanken, E. A. (2009) *Art and Electronic Media*. New York, Phaidon Press

Wright, M.R. (1981) *Empedocles: The Extant Fragments*. New Haven: Yale University Press

Zielinski, S. (2006) *Deep Time of the Media: Towards and Archaeology of Hearing and Seeing by Technical Means*. Cambridge, Massachusetts, MIT Press