Textures of Thought: On Dramaturgy, Cognitive Ecology, and Evental Space
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I begin with some general parameters, regarding notions of media ecology and the specific media of theatre and performance that we are most directly engaged with here. First, I wish to suggest that a dichotomy of agent and environment is often retained, even as ecological metaphors help us perceive media and theatre not as mere tools that we use but as environments that affect perception, cognition and behavior alike. With this dual perspective, to paraphrase Ursula Heise, some theorists understand media ecology as “a large-scale system with its own logic of development,” while others wish to foreground human agency instead, against any technological determinism.¹ In the theatre, this duality manifests in debates over the very liveness or im/mediacy of performance, as if threatened by the effects of mediatization Philip Auslander² has discussed – in effect, the “prejudice” over mediation here extends back to Aristotle, all but dismissing “spectacle” for the higher components of tragedy. Hence the notion of theatricality as “deceptive, exaggerated, artificial, or affected,” in any case derived from and corruptive of some alleged essence – whether identified with reality, authenticity, literature, or liveness: as a medium of utter negation, defined by its “excess and its emptiness, its surplus as well as its lack.”³ From the “clutter” of props and scenery, distracting attention by their very visibility on the early modern stage, to that of onstage screens and monitors today, much of antitheatrical writing has thus capitalized on the logic of objects and surfaces: tangible forms, effectively obstructing such aesthetic “absorption” as art critic Michael Fried famously came to value as the positive opposite of the “objecthood” of theatricality.⁴

Now given this imagined duality of agent and environment, what often seems to follow is that the activity of both is also reduced to forms of imagery or representation: with this dual perspective, media can only “express” realities that pre-exist their mediation, while cognition also is reduced to the mental representation thereof. On the “media” end of the spectrum, as Chris Salter suggests, an overly ocular focus on projected imagery not only reduces the discussion “to well-trodden postmodern oppositions between live versus mediated or presence versus absence,” but also tends to “ignor[e] other senses like touch, hearing, taste, or smell.”⁵ With regard to agency and cognition, likewise, we come to adopt an implicitly spectatorial stance – detached and passive yet pervasive in aesthetic theory and scientific practice alike – in which “knowing” also becomes a matter not of engagement but of representation: standing apart from the world much as a spectator might, the individual can only confront the world as spectacle, not as something of which she takes herself to be an intimate

¹ Heise 2002, 159
² Auslander 1999
³ Postlewait & Davis 2003, 4
⁴ Fried 1980
⁵ Salter 2010, xxxiv-xxxxv
part. As Baz Kershaw suggests, if ever there was an “ecological basis for any anti-
theatrical ‘prejudice’ in the twenty-first century,” it might begin with how the very
creation of spectatorship serves to detach the agent from “ecological engagement.”

Accordingly, I will devote this paper to discussing how such engagement might
be theorized by ecological approaches especially to cognition and dramaturgy – ques-
tioning the notion of “mental representations” much as the so-called performative
turn has questioned exclusively representational accounts of theatre and performance. If
the latter “privilege a demarcation between subject and object or self and world,” as
Salter puts it, then performative approaches imply “that the world emerges over time,
continually transformed through our history of interactions with it.” Likewise with
ecological notions of mind and cognition as fundamentally embodied and embedded
in the world: once we let it extend “out of our heads,” we begin to move from what
could be dubbed a theatricality of cognition (with the world as “mere” scene setting)
to frameworks that begin to betray its fundamental performativity – “not [as] the rep-
resentation of a pregiven world by a pregiven mind,” and Francisco Varela and col-
leagues suggest in The Embodied Mind, but as “the enactment of a world and a mind”
as they mutually specify each other, over entangled histories of structural coupling.

On cognitive ecology and enactive media
To contrast spectatorial perspectives on media with those of direct engagement, one
place to begin is Gibson’s ecological theory of perception, centered on the notion of
affordances as what the environment offers, provides or furnishes for an organism:
the very term, “ecology,” grounded in their fundamental reciprocity, we cannot think
of either in the abstract, but only in terms of the interactions their relationship af-
fords. With some metaphorical license, the way Gibson divides the perceived envi-
ronment into substances, surfaces, and the medium that divides them – air and water,
as his prime examples – also affords an understanding of performative media that
goes beyond the static surfaces of onstage screens and projections: insofar as a “me-
dium” (again, such as air or water) most basically affords perception, movement, and
exploration, in Gibson’s terminology, the limits of mediated performance also come
down to the kinds of virtual affordances that different media enable us to explore.

In other words, ecological media are not means to ends or means of expression;
they are are not “used” like tools might be, and while they do resemble notions of
“immersive media” – “almost invisible to us” like “the water we swim in” – they only

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7 Kershaw 2007, 306, 311
8 Salter 2010, xxvii
9 Varela et al. 1991, 9; other key proponents of embodied, embedded, extended, or enactive cognition
include philosophers Andy Clark, Mark Johnson, Alva Noë, and Evan Thompson; anthropologist Ed-
win Hutchins; and linguist George Lakoff (for more, see Paavolainen 2011, 60ff. et passim.)
10 Gibson 1986. The much quoted definition appears on p. 127: “The affordances of the environment are
what it offers the animal, what it provides or furnishes, either for good or ill. The verb to afford is
found in the dictionary, but the noun affordance is not. … I mean by it something that refers to both the
environment and the animal in a way that no existing term does. It implies the complementarity of the
animal and the environment.” (Notably, present dictionaries are familiar with the noun as well.)
11 ibid., 16-32
serve to enable and constrain, rather than directly determine what we think or do. In a sense, they are continually brought forth as we engage them, and changed in the process like the surrounding ambience is with our tacit processes of respiration. Likewise, affordances for Gibson are neither mental nor physical but relational in nature, and only emerge in situated interaction in a given ecology: for fish, water serves as a medium, for us, as a substance to drink or swim in or wash ourselves with. Given the reciprocity of animal and environment, even the term “interaction” is suspect, in that it implies the two could in fact be defined independently of their formative relation.12

Accordingly, just as we might resist dated “computer” metaphors of mind, neither should we let the generally audiovisual output of digital intervention blind us to the intricate ecologies of performatif engagement that go into its enactment – from the roving presence of live-feed cameramen, through that of unmarked co-performers in contemporary “motion capture” work, to the gradual smartening up and interconnection of props and objects in increasingly intelligent performance environments. With emergent notions of cognition as embodied action or enaction, the point is not to reduce such intelligence to a feature of either performers or media technology, but rather to tease out ways in which it is “brought forth” by their very “coupling” over time – entailing an enactive “co-emergence” of selves and worlds devoid of representational pre-existence. If, in Evan Thompson’s nice set of equations, this “co-emergence” amounts to “sense-making, which [again] equals enaction,” then effectively, the environment of an organism is “the sense it makes of the world.”13 In more theatrical terms, the affordances of different media are “brought forth from a history of coupling” with a given set of performers, the overall sense of the event, only enacted in the co-emergence of a given performance with its given spectatorship.

Then again, the way such accounts often proceed in the first person may somewhat compromise their ecological implications, evoking as it still does the interaction of pre-existing entities that we may just be in the habit of confusing with the singular “communication” of user and screen, human and computer (surely this is habitual in computing/HCI circles). By contrast, in performance practices that Chris Salter terms technologically entangled, “the human may no longer be the sole locus of enactment but performs in tandem with other kinds of beings: a tangle of circuits, an array of sensors … so intimately bound up in a conglomeration of relations that … teas[ing] out separate essences for each” becomes “difficult, if not impossible.”14 Zooming out from the watery metaphor of medial immersion to the flowing together of its different currents, I now turn from the one-on-one interaction of autonomous agents with homogenous media, to the interweaving of heterogenous materials in which both only come to be – to a notion of mediation we may incidentally define as dramaturgy.

12 Paavolainen 2011, 45-7; Nardi & O’Day 1999, 43 (“water,” “invisible”)
13 Thompson 2007, 158
14 Salter 2010, 32
Dramaturgy as texture and interweaving

To the extent that the word itself concerns the “work” of actions or the “organization” of materials – according to its Greek etymology: *drama*, action + *ergon*, work – it may equally imply the imposition of structure by an author (work on actions), or the work of actions more horizontally, across fields of practice such that dramatic theatre only appears as one case of a more general phenomenon. Here, dramaturgy becomes a function not of the *dramaturg* as an isolated agent or “outside eye,” but of the wider cognitive ecology or “texture” of the performative event. By comparison, if performance analysis implies unraveling an event into its different strands, dramaturgy rather serves to trace their interconnection – whether understood in terms of architecture or orchestration; the design and determinism of machinery; the planting or anatomy of an organism; or the rules and patterns of form or structure.

In theatrical tradition, however, the rich texture of any performative event is often abstracted into the rising and falling progression of one single line of action, composed of subsidiary events of change and reversal, over nested segments of dramatic time. In line with anthropologist Tim Ingold’s charming study of *Lines*, one implicit assumption in how this is usually graphed is that lines are prototypically straight – a quality he argues modern thought has variously related with mind, masculinity, and culture, as opposed to the more deviant linearities of matter, femininity, and nature. What is more, and equivalent to reducing the eventness of dramaturgy to the “event-full” events of dramatic complication, such rigid linearity also translates their temporal articulation into a spatial sequence of points, such that “the pattern they eventually form – much as in a child’s join-the-dots puzzle – is already given as a virtual object from the outset. To complete the pattern is … to engage in a process of construction or assembly,” and once that is complete “there is nowhere further for the line to go.”

15 The shift beyond “dramaturgs” characterizes much recent writing on dramaturgy (e.g. throughout Gritzner et al. 2009, eds.); the cited etymology was proposed by Eugenio Barba (1985, see also 2010)
17 Ingold 2007, 152-5 (on straightness), 74 (“join-the-dots” quote)
So, suppose we imagine dramaturgy not on the model of the assembly line but rather, as an assembly of lines – of divergent materials that bring forth a meaningful event in their very interweaving, rather than any one of them being prioritized as an overriding “sign vehicle” for carrying forward “the message.” Akin to Richard Schechner’s chain and braid models for distinct performance traditions, both of these modalities need to be constantly negotiated, however, not as binary opposites but rather in terms of their dramaturgical tension; this is nicely exemplified by Steve Benford and Gabriella Giannachi’s recent work on Performing Mixed Reality (2011). In short, and directly inspired by Ingold’s study of lines, they suggest “a dramaturgy of interactive user experiences” can be traced in the “trajectories” of artists and participants as they pass through hybrid structures of space, time, roles, and interfaces. In a mode akin to Schechner’s chain, these trajectories have to negotiate various transitions and traversals during which overall continuity may be at risk: from beginnings to endings, including traversals between the physical and the virtual, as well as seams in the technological infrastructure. Meanwhile, in the more “braided” mode, the intended and the emergent or what they call canonical and participant trajectories, may diverge and converge due to interactivity and orchestration – all in all, conscious attention and effort is called for in how different trajectories are “interleaved” or “interwoven.”18

18 Benford & Giannachi 2011, Benford et al. 2009; see also www.performingmixedreality.com
With this notion of interweaving, importantly, the mere “interaction” of pre-designed components begins to give way to the eventness of spatial experience as it actually unfolds – to “emergent” or “generative” dramaturgies I suggest have more to do with texture than with precomposed structure, with weaving rather than making. While already popularized as a definition of dramaturgy by Eugenio Barba, the figure of weaving would also seem to productively undermine traditionally all too mechanistic conceptions of technology, media, and making, more generally: as Ingold suggests, “[t]o emphasise making is to regard the object as the expression of an idea; to emphasise weaving is to regard it as the embodiment of a rhythmic movement … as truly generative … rather than merely revelatory of an object that is already present, in an ideal, conceptual or virtual form, in advance of the process that discloses it.”

As for the notion of texture, its traditional uses in music, literature, and the fine arts have recently given way to a small profusion book-length studies, ranging from cognitive poetics (referring the concept to “the experienced quality of textuality”) to communication technology (with texture now defined as “the weave that binds us in a fabric of interconnection”). What I would add, given its etymological connections with architecture, tectonics, technology, and context (from the Latin com texere, “to weave together”) is that the notion also implies a “contextualist” worldview which once again implies the eventness of performance. The specific reference here would be to what philosopher Stephen C. Pepper has identified as the “root metaphors” of Western aesthetics and epistemology, some of which I have already evoked: if formistic metaphors try to explain what something is like, those of organism, how it develops, and mechanistic ones, how it works, then contextualist metaphors are concerned with how it happens. Thus “the point of origin of contextualism is … the event

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19 Ingold 2000, 346; see also Barba 1985, 2010
20 Stockwell 2009, Harper 2010
in its actuality, ... when it is going on now, the dynamic dramatic active event. ... [The] quality of a given event is its intuited wholeness or total character; the texture is the details and relations which make up that character or quality.\textsuperscript{21}

Despite their shared etymology, there is thus a difference between text, as we tend to conflate it with the linearity of print, and the felt quality of texture. At the same time, the predominantly visual and tactile connotations of the metaphor may nevertheless conceal the profoundly multimodal quality it takes on in performance: especially with contemporary sensor technologies, lines of movement, touch, and speech may equally yield textures of light, sound, or visual imagery – yet this “optic” is equally applicable to low-tech performance. Just as every “stage figure” is continuously woven together from diverse processes both human and nonhuman, so every “acting score” consists in a simultaneity of trajectories often beyond explicit control: apart from the possibility of each limb enacting divergent choreographies or “strips of behavior,” the body itself comes down to a bundle of fibers and tissues, metabolically “mediated” by a constant interchange of heterogenous materials.\textsuperscript{22} While Barba discusses dramaturgy as the \textit{layering} of such materials, “independently of the performance’s meanings,” Mike Pearson would add that these layers, with “different relative thicknesses,” will inevitably \textit{mediate} one another “whether they have natural affinities or not”: as an act of “cultural assemblage” as he puts it, dramaturgy “obey[s] no hierarchy of text, performer, stage, props and viewing audience.”\textsuperscript{23}

In such contextualist terms, then, we could suggest that instead of following a pregiven dramaturgy, the work of actions on stage or off \textit{constitutes} one as it unfolds – “stretched” beyond imposed teleology, moments of crisis and reorganization also take on a more topological aspect, as changes in the overall dramaturgical fabric. While it will usually involve an attempt to orchestrate the attention and expectations of an audience, there is always also a certain “surplus” to its very eventness that is hard to pin down in any linear structure. By contrast to the Aristotelian idea of Whole Action as a Sequence of Events, “eventness” can thus be defined as the contextual quality of performance in its unfolding, much of whose “con-texture” will always also leak beyond our direct experience – be it in textures of neural configuration, in the relentless undercurrent of code in digital performance, or indeed in the gathering and dispersal of those who co-enact the event (not all of them, necessarily, human: surely there is a difference to the event of your reading this, say, whether you do so in private or in public, at home or in transit, on screen or with a hard copy at hand).

\textsuperscript{21} Pepper 1942, 232, 238
\textsuperscript{22} On anatomy and the metabolism of “materials,” see Knappett 2005, 65ff. and Ingold 2011, 24ff.; \textit{stage figure, acting score, and strips of behavior} are derived from Prague School semiotics, actor training, and Richard Schechner respectively (cf. Paavolainen 2011, 57, 83, 157 \textit{et passim}.)
Evental space?
Thus, we come to notions of spatial dramaturgy, or what geographer Doreen Massey neatly dubs “the event of place”: in a sense, the tension I’ve been depicting between sequential structure and simultaneous texture can also be related to temporal complication and spatial complexity – the one, eventually “untangled” in the theatre, the other, a function of how every strand of action is “entangled” together. Conveniently, where a traditional metaphor for the dramaturgy of complication would be of a knot and its unraveling, Ingold suggests that we conceptualize place as “a knot of entangled lifelines,” rather than on the containment model of a hub and spokes. While he himself is against space as a concept, and Massey is “for space” – wishing to redeem it from “the prison-house of synchrony” by redefining it as “the simultaneity of stories-so-far” – Ingold’s graph of these two understandings does communicate with Massey’s “global sense of place” as well (its outside as part of its inside, its here-and-now, “itself drawing on a history and a geography of thens and theres”): “as a container for life,” Ingold argues, the hub on the left below is “clearly distinguished from the individuals it contains … as well as from the lines connecting it to other hubs in the network. The knot, by contrast, does not contain life but is rather formed of the very lines along which life is lived. These lines are bound together in the knot, but they are not bound by it. To the contrary they trail beyond it, only to become caught up with other lines in other knots,” together making up “the texture of the world.”

What is interesting in such lines of argument in the present context is how they seem to render kind of “porous” the cherished idea of theatre or performance as an essentially local art form – not in the sense of advancing some colonial expansion beyond,

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24 Pavis 1996, s.v. “knot”; Ingold 2007, 100; 2011, e.g. 84 (“texture of the world”); Massey is quoted from 2005, 36, 54, 140, et passim. (see also 1994, 5, 146ff., and Arlander’s essay in this collection)
but in the sense that the alleged beyond already inheres in-the-here: unbound by inherited grids of place and time, “evental space” is actively enacted or brought forth by whatever lines of action and perception enter its ongoing texture. Conceived as the architecture of performance, we may indeed agree with Cathy Turner that the notion of dramaturgy offers “a way of thinking about space and event together … rather than thinking of performance largely in terms of its action, and architecture in terms of its immutable spaces.”25 Not that there were no tension between its basic ecology and its metaphorical elaboration: fairly intuitive as it seems for us to reduce the complex eventness of our experience to the cognitively “human scale” of bodily, dramatic action (at least this is a hypothesis in cognitive linguistics26), the linearity of the latter remains tacitly entangled in the multiplicity of the former. Zooming out to the big picture, if text, as a paradigm for dramaturgy, goes for the linear and hierarchical – the symbolic economy of print culture and sequential information processing – then texture goes for the simultaneous and heterogeneous – a performative ecology of ever interweaving trajectories, from which categorical boundaries of space, place, and singular dramatic action can only be derived as metaphorical, post-hoc abstractions.

The life of lines: Ecology and context
And a central notion as it is to my very project, let me begin to conclude this essay with Ingold’s more “textured” elaboration of ecology – challenging, he hopes, the “logic of inversion” he finds central to modern thought. In short, if the Gibsonian idea of “organism–environment interaction” may still imply a self-contained organism contained in an environment (as if inverted upon itself), a properly “ecological” notion of media ecology would again involve a more “contextual” interweaving of lines into fleeting textures of thought – the very possibility of mediation, afforded by the multimodal threads of action and exploration that pervade its ecological texture. Insofar as notions of media-as-imagery presuppose some notion of surfaces and hence of insides and outsides, Ingold would argue that their very formation also depends on the interplay of “lines” – specifically, on the transformation of what he calls threads into traces, such that the apparent surfaces they form will dissolve from view once traces again revert to threads. So as not to convert the threads “along which life is lived into boundaries within which it is contained,” he has the very notion of the environment consist not “of the surroundings of a bounded place but of a zone in which their several pathways are thoroughly entangled. In this zone of entanglement – [or] meshwork of interwoven lines [as he calls it] – there are no insides or outsides, only openings and ways through.” Thus, ecology names “the study of the life of lines,” which again is “virtually impossible to accommodate ... within some neatly ordered system” as it is “in the very nature of lines that they always seem to wriggle free of any classification one might seek to impose on them, trailing loose ends in every direction.”27

25 Turner 2010, 161
27 Ingold 2011, 68ff. (logic of inversion); 2007, 41ff. (threads and traces), 2, 103, 50
Here, then (and cf. the figure above), is the key image not only to “the ecological thought” recently defined in like terms by Timothy Morton, but to the contextualist worldview outlined by Pepper in 1942. Where Morton relates our ecological “interconnectedness” to “thinking big – as big as possible” (to “magnitude beyond any idea of magnitude,” in stark contrast we may imagine to Aristotle’s notions of the proper organic magnitude of tragedy), the key to Pepper’s contextualism is “den[y]ing that a whole is nothing but [the] sum of its parts”: “The reason for this is that what is analyzed is categorically an event, and the analysis of an event consists in the exhibition of its texture, and the exhibition of its texture is the discrimination of its strands, and the full discrimination of its strands is the exhibition of other textures … As we analyze a texture, we move down into a structure of strands and at the same time sheer out into its context. … There is no top or bottom to the contextualist world.”28

Accordingly, a properly contextualist understanding whether of dramaturgy or media ecology must conceive “context” not on the image of concentric containment, but in terms of the fluid intertwining of its divergent layers or strands – not in terms of readymade entities, merely embedded in readymade contexts, but in terms of ongoing processes, constitutively interwoven with their ongoing contextures. To rephrase well-worn idioms of the “content” being in the “form,” or the “medium” being the “message,” we might thus suggest that whatever the medium, its meaning resides in the ecology of its weaving, going on and leaking beyond – in cognitive terms, that “mind” as well is an event continually interweaving body, brain, and worldly media, rather than an object we could neatly localize in some privileged part of its ongoing texture.

In spatial terms, likewise, none of the graphs I’ve suggested will quite equal the “territory,” nor is the dramatic path “a static instantaneous”: citing Doreen Massey once more, where maps and graphs imply “a coherent closed system” of which the observer remains “outside and above,” the “instantaneously interconnected” space they imagine may have little to do with how space is actively enacted as an “openend-

28 Morton 2010, 20; Pepper 1942, 238, 249-51
ed interweaving of a multiplicity of trajectories.”\textsuperscript{29} In essence, this equals the difference Ingold would trace between “network” models of “connected points” and what he calls “meshworks” of “entangled lines”\textsuperscript{30} – more pragmatically, perhaps, the de-Certeauian distinction that computer scientist Paul Dourish notes between the strategic practices of design and the tactical practices of use: in his scenario, rather than “simply operating within a spatial environment,” technologies also are always already “implicated in the production of spatiality and spatial experience” (whether they be technologies of movement, navigation, or representation).\textsuperscript{31} To recapitulate my general argument, as spatiality itself becomes a function not of its architectural containment but of the trajectories and mobilities coursing through it – an “evental” outcome of concurrent practices – so its dramaturgy can only be grasped as it is actively enacted or brought forth by whatever lines or trajectories enter its ongoing texture.

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\textsuperscript{29} Massey 2005, 28, 106-7, 100

\textsuperscript{30} Ingold 2007, 80ff. \textit{et passim.;} 2011, 63ff. \textit{et passim.}

\textsuperscript{31} Dourish 2006, 302-3; Brewer & Dourish 2008, 965, 968


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