Léa Perraudin, Iva Rešetar & Clemens Winkler in Conversation

The Body of Breath: Morphologies of Air Movement

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What makes a body of breath? This elusive agglomeration of aerial flow – is it a matter of chaos, of intensity, of poetic expression? Do we inhabit, grasp and then liberate this body by aligning, emanating and *form-ulating*?

Iva Rešetar (IR): As we look back on our experiments with schlieren photography¹, we can start this conversation by drawing connections between the role this technique had in the natural sciences and the ways we re-enact or ‘repurpose’ it in experimental design research. One can describe the schlieren apparatus as an optical set-up consisting of a parabolic mirror, a razor blade, a camera and a light – all placed in a precise configuration to expose differences in the refractivity of air. In this way, whatever transpires in front of the mirror will cause small changes in air density, temperature and pressure, creating the streaking effect of deflected light captured by the camera.

This analogue manner of observing the temporal structure of air flows to “see the invisible”² has made schlieren a tool for visualizing the complex behavior of fluid bodies, the patterns of their movement and expansion, and their interplay with solids. Tracing its sporadic deployment in science – from detailing candle plumes or plant respiration, to the high-speed physics of supersonic and ballistic experiments in the military-scientific context, it seems that for most of the time, without practical use and in the hands of many improvisers, it retained its character as a demonstrator – not necessarily for quantifying fluid dynamics processes, but as an experimental stage for performance and

1 See image series *Speaking, Dissipating, Transmitting*, pp. 99–115.

2 Garry S. Settles, *Schlieren and Shadowgraph Techniques*, Berlin/Heidelberg 2001, p. 3.

discovery, and it was this quality that drew us to schlieren in our experiments with breathing.³

If schlieren photography belongs to the category of scientific imagery used to see through the material or a tissue and reveal its hidden structure⁴, one difference from other observation techniques is that it creates a 'section' of the void. We might ask – apart from making the phenomenon of inhomogeneous, transparent media visible, what else do the experiments with the apparent void show?

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Léa Perraudin (LP): The filmmaker and critical theorist Trinh T. Minh-ha ascribes a radical negativity to the void. Interestingly enough, she emphasizes its potential for continuous renewal as a “vital open space” since it “entails a constant questioning of arrested representations”.⁵ How does this translate to schlieren? What is happening during the experiments? I think that acknowledging the void in this case is a question of endurance, an exercise in amplifying the inhomogeneous. It exposes a strange horizon in the mirror, it cuts through an elsewhere, it brings forth the faculty of pouring *into*. Martin Heidegger, starting out precisely from this capacity, reminds us: “[T]he vessel’s thingness does not lie at all in the material of which it consists, but in the void that holds.” Looking at a jug without water, he asks: “[I]s the jug really empty?”⁶

Clemens Winkler (CW): Speaking about the void here reminds me of Gaston Bachelard’s investigations on the aerial-material imagination⁷, and I would like to ask how we could take the void, as Bachelard called it, as a “poetic act”? There is something very active in poetic contemplation here. While performing in front of the mirror, even if we try not to move our lips, not to breathe, not to make a sound, not to do anything with our whole body, we will realize that the emptiness is in fact a space full of possibilities. We can start to observe the void with its subtle changes in air movement as a way of discovering the “multi-

3 Ibid., Settles describes the intuitive and visceral nature of experimenting with schlieren in the work of the scientist August Toepler, who technically refined the apparatus and gave it its present name: “All of Toepler’s 1864 schlieren treatise was qualitative, i.e. visual rather than numerical or theoretical. He had an excellent physical ‘feel’ for his subject. For example, he proved the outer mantle of a flame to be convection by duplicating it with a hot metal bulb (as did Marat a century before). He felt the shock wave from a spark in a hand-held cork before he ever actually saw it. Then he demonstrated the dependence of the observed shock motion on the speed of sound by varying the air temperature or composition.” Settles, p. 10.

4 Scientific techniques for making things visible differ fundamentally in their method and field of inquiry, depending on why certain phenomena are invisible to us. While X-ray imaging allows us to see through opaque objects

and X-ray diffraction exposes small-scale molecular or atomic structures, schlieren photography visualizes something that is too transparent to be seen. We thank Peter Fratzl for pointing out these epistemic differences.

5 Nancy N. Chen, “Speaking Nearby”: A conversation with Trinh T. Minh-ha,” in: *Visual Anthropology Review* 8 (1), 1992, pp. 82–91, here: p. 89.

6 Martin Heidegger, “The Thing,” in: id. (ed.), *Poetry, language, thought*, transl. from German by Albert Hofstadter, New York 1971, pp. 163–184, here: p. 167.

7 See chapter on “Silent Speech,” in: Gaston Bachelard, *Air and Dreams: An Essay on the Imagination of Movement*, transl. from French by Edith R. Farrell/C. Frederick Farrell, Dallas 2011, p. 239.

plicity of poetic breathing”.⁸ Or, in other words, as Bachelard remarked, the hardness and stiffness of words can be given new life through attentive silence and by exploring the richness of a poem’s vocal patterns in the void.

IR: We can also refer back to the void as an open space for amplifying differences in the texture and composition of the environment and discuss the ways it configured our perception in the experiments. Initially, we thought we would be dealing with imperceptible phenomena – at least those below the threshold of our visual perception – which would become accessible through the schlieren mirror. There was an uncertainty as to whether our physiology is receptive to this range and if these processes belong to automated operations running in the background of the body, just as breathing is considered to be. Would you say that direct experimentation raised the threshold of our perception by detailing this sensorial space and drawing the attention to the ‘breathing out’ – the effect we have on the surroundings?

One of our interests was to question the way we habitually perceive and categorize materials: while the materiality of solid bodies is readily recognized as tangible, schlieren shifts the focus to the void of the environment that tends to escape our attention to the point of being overlooked. All these processes of mixing solids and fluids that took place in front of the mirror showed the environment to be more than a passive surrounding – it is incorporated and constantly changing in contact with the body. Even if the breath itself, as Tim Ingold has noted, belongs only to “the generative dynamics of flux”⁹ – the process of breathing firmly ties the air with the rest of the body into a temporal relationship, in which the breath cannot be halted, contained or reversed. And perhaps schlieren is an indicator of this continuity.

LP: The body of breath is working on us while we are working on it. So, tuning into this body entails facing the void. And it dares us to question the mechanics and means of its delivery while being in the middle of our conversation. “Who’s afraid of the void?” one might ask. I think you boldly rephrased that question through your experiments as: “Where do you start to look?” already turning towards what will soon be amplified, lingering below the threshold of perception, belonging to

8 Ibid., p. 239.

9 In his discussion of whether the breath is an entity, Tim Ingold invokes Henri Bergson’s observation that the mind “feels at home among inanimate objects, more especially among solids, where our action finds its fulcrum and our industry its tools”. Criticizing both the contrast and flattening of “the connective logic of solids and the generative dynamics of flux, so often confused under the catch-

all of ‘assemblage’,” Ingold notes that “[b]reath manifests in the latter mode. It is not fixed but fluid, not solid but gaseous, not bounded but diffuse, not complete but ever arising... Their succession is the rhythm of time passing,” see Tim Ingold, “On Breath and Breathing: A Concluding Comment,” in: *Body & Society* 26 (2), 2000, pp. 158–167, here: pp. 160f.

the existential automatisms we perform, but rarely notice *as* life-sustaining acts.

CW: Our conversation feels to me like a breathing in and out right now. And I like that we have started with the void and are now delving into methods for shifting human perception. The field of interaction design deals with ways of opening up perception and shifting modes of attention, mostly through prosthetic devices. A couple of years ago, the main issue for me was that altering¹⁰ perception seems to address human-centered design approaches, but the question was, what would an altering interface look like for other kinds of environmental perspectives that are able to sense something beyond the human, with, so to speak, other-than-human perceptions? And that's what I see in *schlieren* – it is not only oriented towards the human perspective, because even without us, the room and the set-up seem to enter into a dialogue. It is open to the human but also to the environment, extending their relationship. Here, it is not about adding sensory channels to our capacity for dialogue, I think we are capable of adapting to that. Instead of flattening out many sensations by widening the range, it is about intensifying what is sensed.

LP: If we relate this to the idea of alignment as a crucial term for setting up a scientific experiment, everything has to be precisely positioned for viable results to be produced. Within your performance, on the other hand, alignment makes us realize how the movement and the vitality of the body come into play (through breath). Alignment might not be a stability seeking procedure, but rather an act of relating to the unruliness, to the uncertainty that exists in the room and effectively to the 'risk' of that exposure. You do something with a scientific apparatus usually used to measure, to clarify and to generate findings, but you do so by explicitly relating to this void through your own physical conditions, through your visceral understanding of proximity and distance and the acceptance that something else might emerge from it.

CW: Pragmatically speaking, the alignment was necessary to create intensities. When I was breathing in front of the mirror, Iva was saying: "Please come closer to the mirror, now to the camera, now better from the left and from the right..." So, there were many alignments, and we were performing back and forth to the point of my

¹⁰ "Altering" as a term became popular in the field of human-computer interaction (HCI) and interaction design, such as in the introductions of Carson Reynolds, *Devices That Alter Perception*, Scotts Valley 2011, and in Madeleine Schwartzmann, *See Yourself Sensing – Redefining Human Perception*, London 2011.

saying: “I cannot breathe anymore, I need to step back for a moment.” And then I would get back into my position of a human body becoming a sensing instrument again. This constant physically sensed alignment, in which we became an apparatus, is also interesting. Am I observing the air, or am I surrounded, separated by it? Where are we in this experiment? Are we separate from the surroundings at all?

IR: I find it interesting how you emphasized the aspect of body becoming the instrument of the set-up, where the choreography between us comes into play, because in a way – it’s not about the mirror itself, since you don’t see the schlieren effect in the mirror. You experience it indirectly, by way of the other person looking at the mirror through the camera, and it is this dialogue one could call alignment.

LP: Definitely! And also in the navigation you’re describing, you have to trust each other and find a common language to translate what one person is seeing into what the other person is doing. This becomes an exercise in making visible and mediating, right?

CW: Yes, this might be a question of purposefulness of the exercise, as mentioned at the beginning, because alignment seems to be something about being disciplined or, more broadly, being trained in a discipline. Here, disciplined is not meant in the sense of opposing our interdisciplinary and even non-disciplinary approach so as to open ourselves to something anew, as in a collaboration. We want to gain a clearer image of what is hidden, and this common aim seems to choreograph our movement towards repeated adjustments. So, aligning here might mean performing and agreeing on where the material activity shows in the surrounding air. As only one of us can follow the material activity visually in the mirror, the other one could assert: “I am a candle.” The shift between sensing, emphasizing and affecting the surrounding air might be a new kind of dialogue, which is possibly different from the scientific method, where the object of measure is rarely a perceiving human subject (Fig. 1).

IR: When it comes to our attempts to get closer to the image of the hidden behaviors, we could describe in more detail how we sequenced the experiments. As you mentioned, the whole room, schlieren set-up and both of us as part of it, participated in the exercise of how the bodies, things and devices take up and transform the space around them – through breathing, leakage, dissipation, evaporation. Even the very ‘solid’ solids appear to have an elusive, diffuse boundary in this exchange.

COMMUNICATION DIAGRAM

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Fig. 1: Communication diagram: one of us performs in front of the mirror (1), while the other person observes the schlieren effect through the camera lens (2) this person gives further hints (3) reporting what is seen. The person in front of the mirror can feel the heat of the candle or temperature fluctuations in the room. The last arrow (4) shows how the communication extends beyond the fringes of the mirror, when the pressure and heat generated in the experiments converge with air flows in the environment.

We started experimenting with breathing *in-and-out* – alternating intake and discharge, and observing a close relationship between exhalation and speech, between the form of the breath and the articulation of language – a process Clemens called *form-ulation* (see *Speaking*). The second series was a close-up of the space *nearby*, which approached the porosity and transmittance of various solid bodies, including our own (see *Dissipating*), and the third series extended to the space *in-between*, shifting the focus from the body to the exhaust of other things and devices (see *Transmitting*).

There was an asymmetry in our visualisations – one could not easily capture the intake of the air, only the ‘discharge’. This breath moving from the inside of the body outwards is visible because it carries the difference in heat and moisture after passing through the inner structure of interconnected channels and voids. By acknowledging the hollowness of the body, we can also think about breathing as a process of conversion: the inhaled air is a different substance when it goes out, showing up in schlieren images only after conversion.

CW: I like the term ‘discharge’ because it gives the material activities in the schlieren set-up new metaphorical meaning – an electro-chemical connotation that refers to an energetic state. This metaphorical turn might help us link cooling and the streaking patterns to the receptivity of membranes or the polarity of molecules. So, what we observed in the beginning as in-haling and ex-haling in our experiments might become aesthetically linked to charging and discharging, occurring on the smaller scales in chemical and microbiological processes (see *Cooling and Streaking*).

LP: Speaking of these kinds of intakes and (r)enunciations: Luce Irigaray brings forth a quite unique understanding of communality through environmental detachment in breathing.

“Life is cultivated by life itself, in breathing. This practice produces a distance, an estrangement, a proper becoming that is a renunciation of adherence to the environment. The near becomes one’s own, through air. [...] If breathing estranges me from the other, this gesture also signifies a sharing with the world that surrounds me and with the community that inhabits it. Food and even speech can be assimilated, partially become mine. It is not the same for air. I can breathe in my own way, but the air will never simply be mine.”¹¹

Through her emphasis on respiration and cultivation, this argument might be considered as an attempt to broaden the scope of the Heideggerian notion of dwelling. Heidegger states: “[T]o be a human being means to be on the earth as a mortal. It means to dwell.”¹² Introducing breath into this equation, Irigaray acknowledges the widely held assumption of breathing as an elementary practice of grounding. More importantly, though, she presents it as a case of belonging *and* detachment. Her use of language suggests that as living beings we share a respiratory complex. There is a productive invasiveness in breathing air: it pours life into the body (absorbs oxygen) and affirms the precariousness of our existence to the world at every exhalation (expels CO₂).

Tying this back to your experiments, life becomes mediated through the imagery of its prime signifier: breath. Schlieren bears affectivity; I think this is part of the mesmerizing quality of the images, that we become aware that something emanates. It affects us. Because we assume that something that emanates is alive. This would also broaden our general understanding of breath towards e.g. the skin as an organ of exchange and emanation as you demonstrated in the experiments on convection from hands (see image series *Dissipating*). Additionally, when we see emanation from things such as a candle or a hairdryer, we assume it to be a (metaphorical) force of breath that in a way consequently becomes a signifier of their own vitality, of their ability to affect their surroundings and to maintain the integrity of their thingness or lack thereof. So, how does this affectivity relate to the idea of alignment we discussed earlier? We could think of affectivity and alignment as different iterations of a gesture with their respective ‘densities’. In making breathing the core of the experimental set-up of schlieren, affectivity accounts for alignment, while alignment renders the affectivity visible.

IR: What you touched on when you mentioned the notion of dwelling and Irigaray’s response is closely related to the different attention given to the material realm of solids and to invisible phenomena in architecture. Unlike natural scientists who move easily between scales and states of matter, our design methodology is rooted in tectonics and the construction of solid materials. There is, of course, a sense of phenomenological space of atmospheres as a perceptual

11 Luce Irigaray, “From The Forgetting of Air to To Be Two,” in: Nancy J. Holland/Patricia J. Huntington (eds.), *Feminist Interpretations of Martin Heidegger*, trans. from French by Heidi Bostic/Stephen Pluhacek, University Park, Pennsylvania 2001, pp. 309–315, here: p. 311; 312.

12 Martin Heidegger, “Building dwelling thinking,” transl. from German by Albert Hofstadter, in: Heidegger 1971 (note 3), pp. 145–161, here: p. 147.

effect or experience of built structure – the sensuous emission of the physical form,¹³ starting where the tangible stops. But environmental issues of a more technical nature are the domain of engineering and technology, and our models and representations are rarely affected by thermodynamic processes and the ‘anarchy’ of flows. In this context, schlieren as a method of observing, sensing and co-creating is a way of experimentally approaching the materiality of breath, but also that of air – of reconsidering dwelling in this element, as Irigaray called for¹⁴ – with all kinds of events, such as exhaust fumes and heat emissions that happen on different scales and go unnoticed, while making the collective environment less breathable.

The question here is how this new attention to invisible phenomena might reshape our design methodologies. If the two material realms are inseparable and in constant exchange – how could built structures and enclosures incorporate the contingency of flows without resisting it? Michelle Addington, critical of the hermetic character of modern architecture, sees this discussion as taking place between physics and architectural concepts.¹⁵ She argues for rethinking the notion of the boundary, not as a physical demarcation or even a spatial entity – traditionally collapsed into a line in architectural plans and sections – but as a zone in which energy exchange occurs. On the example of the body-sized schlieren image,¹⁶ Addington notes that this ‘fleeting boundary’ is in fact an active zone of negotiation in the proximity of the moving body – a discrete and subjective phenomenological space. This line of thinking is interesting because it focuses on behaviors and scales of the physical phenomena at stake, moving from the vast ‘homogenous’ space of the building with its tangible barriers and thresholds to processes nearby and in-between bodies. It places the emphasis on temporality and the scale of processes when designing the perceptual space.

LP: By referring to the “boundary as behavior”, Addington introduces a novel understanding of spatial relations through the thermodynamic processes at play here, in that action itself can be described as a

13 Mark Wigley writes that atmosphere, whether intended or implicit, is impossible to control, arguing that even the absence of atmosphere defines one: “Atmospheric effects cannot be avoided. They permeate architecture. Architecture is defined by atmosphere. At the same time, those who embrace effect cannot approach atmosphere directly, cannot point to it, cannot teach it... Any specific proposal for constructing atmosphere, no matter how changeable or indeterminate, is no longer atmospheric. Atmosphere may be the core of architecture but it is a core that cannot simply be addressed or controlled.” Mark Wigley, “The Architecture of Atmosphere,” in: *Daidalos. Architektur – Kunst – Kultur* 68, 1998, pp. 18–27, here: p. 27.

14 “Is there a dwelling more vast, more spacious, or even more generally peaceful than that of air? Can man live elsewhere than in air? No other element is as light, as free, and as much in the ‘fundamental’ mode of a permanent, available, ‘there is’.” Luce Irigaray, *The Forgetting of Air in Martin Heidegger*, transl. from French by Mary Beth Mader, Austin 2001, p. 8.

15 Michelle Addington, “Contingent Behaviours,” in: Sean Lally (ed.), *Energies: New Material Boundaries, Architectural Design* 79, 2009, pp. 12–17.

16 Michelle Addington, “The phenomena of the non-visual,” in: Sean Lally/Jessica Young (eds.), *Softspace: From a Representation of Form to a Simulation of Space*, Abingdon/New York 2007, pp. 38–51.

boundary.¹⁷ This immediately shifts our attention from borders assumed as identifiers of a given environment to how we ourselves (in tandem with many ‘others’) are carriers of the emergence of these environments. At some point, these boundaries might be congruent with what we perceive in the built environment or what we accept as distinctions between bodies in space and time. But they don’t have to be. If we relate to the surroundings through practices of proximity and of distance, the lines of transitions and the way we distinguish them are also dispersed. We might call breathing an ordinary yet radical event of transgression.

CW: This reminds me of two things. First, when I came to the Cluster of Excellence and started finding a common ground with computer scientists on what constitutes materiality, we agreed after a longer discussion that materiality is a difference in homogeneity and intensity. This difference might refer to a place where two materials touch or overlap, before approximating any outlines, interfaces or boundaries between them. In our schlieren experiment we approximated outlines when seeing hard contours, such as when releasing helium from a balloon (see *Leaking, Deflating and Diluting*). It was really tricky to determine the boundaries here. Taking this as a creative technique into account, we can draw inspiration from painters of clouds in the 19th century,¹⁸ who used blotting, rather than imposing contours or boundaries around objects in the sky. When working with densities of blots, instead of line drawings, we might get closer to describing boundaries.

Another point in thinking about boundary as behavior is when we perceive clouds in the sky as objects standing still, although the surrounding wind is of high pressure and speed. While we perceive a slightly morphing but rather static object, each particle in the air containing water increases speed, enters a condensation state, and leaves this condensation state at the end of the perceived cloud. From a material perspective, the cloud we see is constantly renewing itself. This might prove interesting when we talk here about observing boundaries in the schlieren experiment which interchange in fractions of a second.

IR: The visualization technique you spoke of – blotting as a way of conceptualizing boundaries – has links with how design practices

¹⁷ Ibid., p. 40.

¹⁸ Painters such as Alexander Cozens and John Constable, see: Johannes Stückelberger, “Skying. Wolkenmalerei als Übungsfeld einer autopoietischen Ästhetik nach 1800,” in: Friedrich Weltzien (ed.), von selbst. *Autopoietische Verfahren in der Ästhetik des 19. Jahrhunderts*, Berlin 2006, pp. 109–123.

rely on imagery to anticipate and articulate unknown relationships and communicate those ideas at the limits of or outside our imagination or experience, which are in turn reshaped by them. Although schlieren is only an optical effect and instrumental refinement of a 'shadow-graph', the technique is productive in a similar way – it gives access to body-material-environment relations while simultaneously constructing them.

One might think that complexity of these flows would result in visual noise, but there was a range of relationships that generated specific patterns and morphologies of air we could name after actions and processes – such as *Burning and Fluctuating, Blowing, Deflating*. In *Speaking*, Clemens moved further in the direction of sound to explore speech patterns, and how the form of breath and the formulation of language influence each other.

CW: Without the void or the understanding of formless fluctuations inside, we cannot see the continuity behind processes of leakage, excess of energy or decay. The formlessness¹⁹ perceived in our schlieren images becomes the impulse to *create-with* morphologies in air as a *form-ulating* process.

I would like to examine some examples to specify the notions of form-ulating as *creating-with* bodies of air. The subtle formless textures of our voices articulated as clearly as possible in front of the schlieren also tell us what we are not in control of. In the protocol following our experiments we described the movement of our head, how we were using our tongue and teeth to speak. We started with vowels, O, A, I, and diphthongs, OI AU, based on the tension in the lips, the mouth, the throat and the diaphragm. Starting to practice vowels unknown to me from the international phonetic table,²⁰ I reached my limits pretty quickly. Besides French nasal vowels, channeling and propelling the air as it were differently, or phonetics through the throat as in Arabic, I felt there are so many ways of inhabiting the air through *form-ulations*. So, instead of trying to objectify vowels through their seemingly clear pronunciation, we can see in the image series how many of these vowels become approximated in speech. Also, our acquired speaking techniques determined how we shape such morphologies in the medium of air. I assume people experienced in phonetics and harmonics would

19 In my recent investigations it became important to draw attention to the concept of formlessness and follow waste and dissipation beyond the fringes of any object. See how Georges Bataille's *informe* becomes an "operational force" in Yve-Alain Bois/Rosalind Krauss, *Formless: A User's Guide*, New York 1997, p. 9.

20 https://en.wikipedia.org/wiki/International_Phonetic_Alphabet_chart (last accessed: 19.7.2020).

underline here the infinite richness of undertones, which we perceive more or less consciously.

LP: Every technological sensory enhancement apparatus has to deal with the fact that its existence might involve obscuring other things that we would be able to see with our own eyes or feel with our own bodily sensors. So, there is a technological bias in operations such as magnifying, intensifying, making visible – operations of granting access. How did you deal with the question of measurement, refinement and precision, e.g. in *form-ulation*, while conducting the experiments?

CW: Over the course of our experimentation questions of measuring and refining remained in constant tension with control-ability and experiences that came up during the process. *Form-ulating* here was a *composing-* and *becoming-with* materials not trying to recreate a particular flow, but rather *creating-with* the air streams to intensify or dissipate them. Here, I could see us as improvisers or amateurs crafting with flows and channels of the airy material.²¹

LP: A conversation in proximity of the schlieren void is always already a conversation about and through mediation – between modes of enunciation, procedures, measurements and actors taking part in this exchange, and ultimately a matter of conversion. This conversion arises from the hollowness you were talking about earlier that makes us see the from-to flow similar to the paths Michel Serres refers to: “[I]f everything flows, there must be channels. If everything communicates, there must be roads. And the theoretical existence of the void may alone account for these paths, channels or roads, laid out, complex, in the hollow body.”²² We can think of this as flows between chaos and alignment, between intensity and emanation, between poetics and *form-ulation*. The body of breath, our flock of aerial matter, encompasses the deictic utterance of these propositions. In connection with utterance and mediation, I would like to introduce the notion of delivery to address these procedures of exchange. We use the term ‘delivery’ to describe acts as diverse as ‘setting free’, ‘handing over’, ‘transmitting’, ‘giving forth through childbirth’, ‘bringing something into the world’, or ‘a manner of utterance or enunciation’.

During the experiments, you were *in-forming* each other, you were performing procedures of exchange through aerial matter, you were aligning your bodies as a means of mediation into a site of utterance

21 Amateurs as correspondents in Tim Ingold, *Correspondences*, Cambridge/Medford 2020, p. 11.

22 Michel Serres, *The Birth of Physics*, transl. from French by Jack Hawkes/David Webb, Manchester 2000, pp. 49; 95.

and therefore delivery. It seems to me to be such an elegant tweak of classical models of communication in information theory and their accompanying assumptions about the quality, form and function of a message. One thing that remains to be addressed in terms of mediation, though: how is this mediation itself to be *mediated*? You are dealing with photographs taken from a moving image ecology that captured moving bodies (of breath) in the experiments at a point in time, to be selected, assembled and printed in a book. What gets lost, what emerges as surplus during this decision-making process – that is a process of alignment in itself and a question of delivery (for a print medium).

CW: Understanding delivery as articulating does not dictate any particular finding. If articulating during the experiment meant intensifying the paths and channels of air, it later became a process of decelerating the recorded videos, scaling and cropping still images, to understand better what we might discover in what you call a “mediated mediation”. The series of images allowed us to discover structures and typologies in certain frames of our footage otherwise elusive or hard to discern. So, what you mentioned earlier in terms of a technological bias helped us deliver a printed photo series, magnified, so to say, slowed down, as a refined structure of what appeared in the real-time experiment, where instant turbulences affected our human bodies and the surroundings. What might get lost is an understanding of how the air transitions from one state to the other or becomes diluted following entropic laws. That is why we preferred a sequence of images, highlighting certain key moments with larger, still images. Another element in the process that might have gotten lost was pausing. The reader would need to imagine a pause in between the image sequences. Pausing was needed for the body of the surrounding air and our own to settle before the next shot was taken. Therefore, we decided to let the series of still images end with a blank mirror, to return to the sensation of aligning to the void in front of the schlieren mirror as a *tableau vivant* of environmental as well as human actions.

LP: You spoke into the void. Not to instrumentalize and exploit it, but rather to expose yourself to *something* by positioning yourself in proximity to it. To think through this, you were also shifting the quality of that which we perceive as boundary. Coming back to Trinh’s notion of the void, the positioning in proximity resonates with what she has

prominently called the practice of ‘speaking nearby’, a modest gesture of alignment in a way (evolving from her work as filmmaker and critical theorist): not to *speak about* – in order to seek objectivity – not to *speak for* – so as to make a claim – but to *speak nearby*.

The body of breath is a materialization beyond language. Even if, in the physical sense, it may be a direct result of language, of speaking, of performing words, of creating meaning. Though this body of breath might have been purposefully created through phonetic decisions, its ontological status as emanation through *form-ulation* emerges from something else entirely. That’s why the task of e.g. creating an alphabet of schlieren manifestations is not going to tell us anything about this void – it is the body of breath itself that does. This body of breath is more than a mere “instrument of thought”.²³

This conversation took place online and as written correspondence in 2020–21, following the experiments with schlieren photography carried out at the Cluster of Excellence *Matters of Activity. Image Space Material* in 2019–20.

23 Chen 1992 (note 3), p. 87.

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Iva Rešetar & Clemens Winkler, *Speaking, Dissipating, Transmitting*,
Experiments with schlieren photography, parabolic mirror, light, razor blade,
camera, various objects, 2019–2020.

Transmitting:
Deflating and Diluting

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Speaking:
Exhaling and Pausing

Speaking:
Forming and Formulating D, G, H, I, O, Q, P, R, S

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