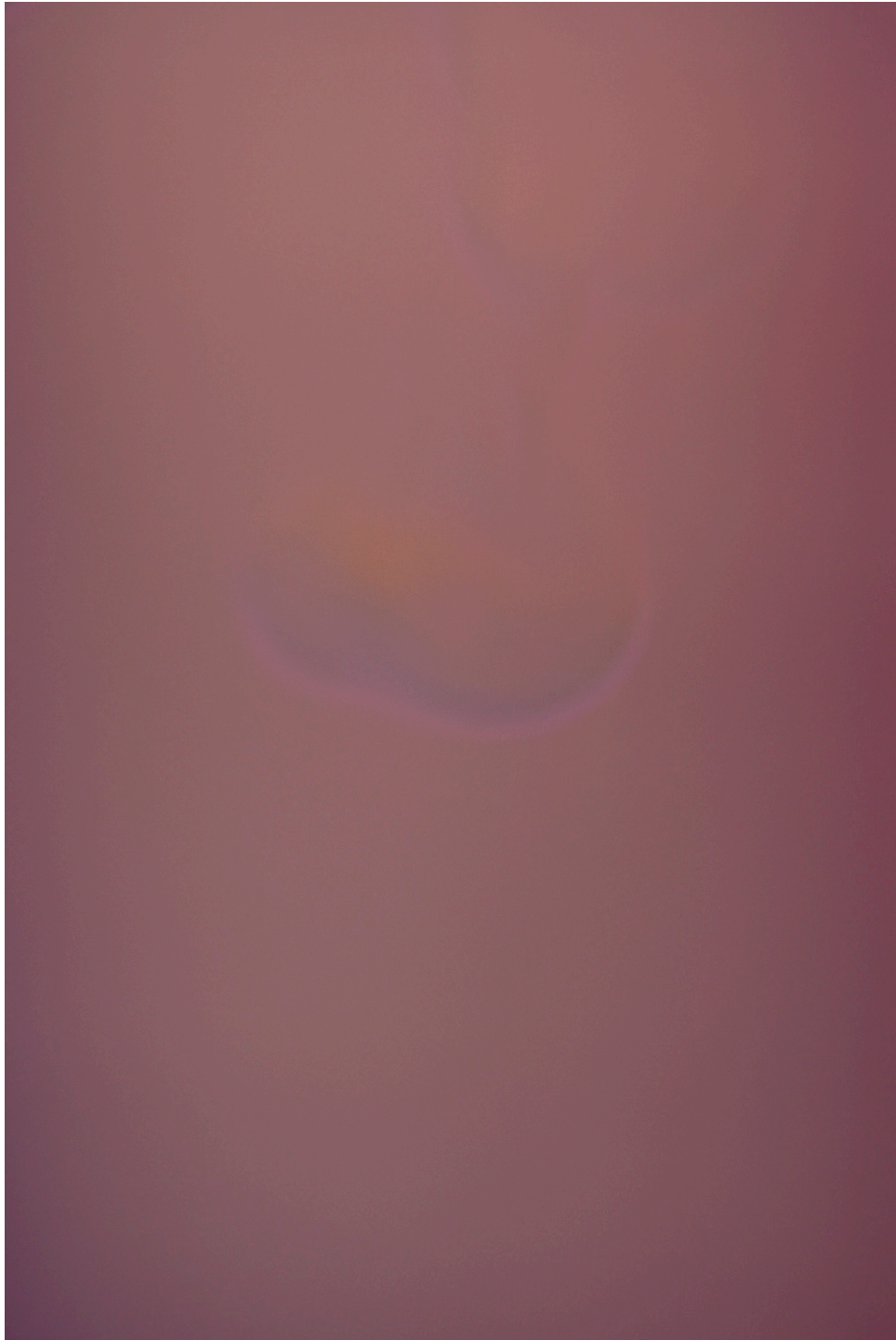**SHADOWGRAPHS** An Interview with Erik Wysocan

(A THOUSAND & ONE NIGHTS), 2011
INSTALLATION VIEW
COURTESY OF ARTIST AND ANDREA ROSEN GALLERY

(A VASE OF FLOWERS AND TWO PLUMS ON A MARBLE TABLETOP, A VASE OF FLOWERS AND TWO PLUMS ON A MARBLE TABLETOP), 2011
COURTESY OF ARTIST AND ANDREA ROSEN GALLERY

(DÉCOUVERTES DE M. MARAT SUR LE FEU, L'ÉLECTRICITITÉ, ET LA LUMIÈRE, 1779), 2012
COURTESY OF ARTIST AND LAUREL GITLEN GALLERY

WG: In your show at Andrea Rosen (March 2011), you developed an intersection between the mechanics and politics of visuality. Specifically, I'm referring to the x-ray machine and the sculptures that framed the doorway to the show, which intimated airport security scanners. When these technologies are examined in a political context, it is usually in reference to the security state and post-9/11 politics: regimes of surveillance, control, the authoritarian gaze, etc. Yet their scientificity, so to speak, is rarely considered to be a political question. So their presence in the gallery opened a different line of thought, namely that scientific and aesthetic discourses—normally held apart—in fact shade into each, or are shown to be intertwined rather than mutually exclusive.

At least, this is how I read your inclusion of the Peter Weiss play, Marat/Sade, which is this mise-en-abime of chronological settings, as well as the open-ended dialogue you developed with his widow and collaborator Gunilla Weiss, both of which were also part of the show.I found the connection between these thematics really profound: the intimation here is that the politico-scientific, just like the historical, requires an aesthetic dimension in order to produce its object of analysis. Your recent work returns to Marat, and similarly picks up on the thematics of visualization in reference to the 'shadowgraphs' that he developed in the years preceding the revolution. Could you talk a little about your interest in Marat, and how you understand the intersection between imaging technologies, politics, and history?

EW: The intersection you reference is important to me, but I wouldn't say that I've resolved it in any way, or even that I have a firm grasp on how to articulate it coherently. Perhaps it is not even possible to do so. The issue is this: aesthetics, or image-making, can produce meaning in a way that is incongruent with language, which is why modern science—for which the myth of objectivity is so central—necessarily fails to address its own aesthetic procedures. Marat is really fascinating in this regard, and it's important to understand the conditions from which he emerged as a historical figure.

Marat invented these new forms of image production, such as the shadowgraph, during a time when research science wasn't formalized, and certainly wasn't a career in the manner it is now. This is key, because science in the 18th century was performed by wealthy amateurs—the enlightened aristocracy. It was a small world of engrained class stratification, revolving around the Royal Society, in which Marat was an anomaly. He was a doctor who managed to climb his way up the social strata by what appears to be a very strategic client selection. For this reason, he could never fully shed his 'professional' status, and as a result his research was never taken entirely seriously. Some theorize that this intellectual ostracization led to his initial turn to radicalized politics. And in fact, his work with the shadowgraphs was one of the points of contention between him and the Royal Society.

We should not separate these social conditions from his work. Marat must have been very aware of the class dynamics to which he was subject, and it's quite easy to imagine that he found in the shadowgraph, which visualizes otherwise invisible flows, not only a scientific but also a political project. In other words, these social conditions I've outlined are key to understanding how Marat arrived at such radically different conclusions than his peers.

At this time, the science of optics was at a very early stage. Basically, there were only devices for magnification—simple telescopes and microscopes—instruments that amplify the function of the eye. But then Marat comes along and invents these new processes that are not just a linear extension of sight. Ingeniously, he developed a technique that renders visible the invisible, fluidic movement of energy. Historically, I think the shadowgraph work can be viewed as one of the earliest instance of imaging in the modern sense: as you stated, these types of imaging technologies invent their object matter through the act of producing representations. And for Marat, this new mode of "seeing" is carried forward in his revolutionary politics and writing.

The historical record says very little about Marat's pre-revolutionary scientific studies. By and large, all of his work was dismissed until quite recently, despite early support from significant thinkers such as Goethe and Benjamin Franklin (quite an extraordinary convergence to think about!). And the reason for this dismissal, I believe, is that once you put value on his scientific work—that is, once you acknowledge that he was a rational, even powerful thinker—then it becomes difficult to argue that he was, at the same time, an irrational political extremist during the revolution. Indeed, the historians who have reconsidered his scientific contributions have also argued that his political writings are not the voice of a fanatic, but instead the work of a strategic rhetorician, using language the render visible the factional politics of his time—sort of manifesting history through the thin air of speech.

WG: Renders the invisible visible. I find that way of putting it attractive for a number of reasons, but one that especially fascinates me is the way it raises the question of the relation between the invisible and the visible. Specifically, I'm wondering if you would imagine the invisible as being there prior to its becoming visible? Or is it more the case that what Marat imaged became real only when it was rendered visible? How do you see the status of the invisible prior to the creation of images or visibility? Which is also to ask, I suppose, about the relation between aesthetic production—Marat's, as well as yours—and the becoming of the real.

EW: The operative word here is 'imagine.' Certainly we can imagine that something has existed before it becomes known. However, I believe one could make a claim that the act of cognition is a material process that results in new configurations of information that didn't previously exist. In that sense, the point is not whether or not the 'thing' existed prior, but that the process of knowing manifests a new state of affairs (an object). This is where aesthetics comes into play. With that said, most people have faith in the a priori existence of reality—not just in the natural sciences, but in the way that we understand the events of the past in general and history in particular.

WG: Adding to that, I wonder whether you would see a link here to your practice regarding history. It seems that one implication of your work is to valorize dynamics that, while belonging to history, are removed from our 'image' of it, those effects which escape our capacity to produce a sign—the outside of thought. Is there a sense in which your practice with regard to historical dynamics connects to this question of the status of the non-visible?
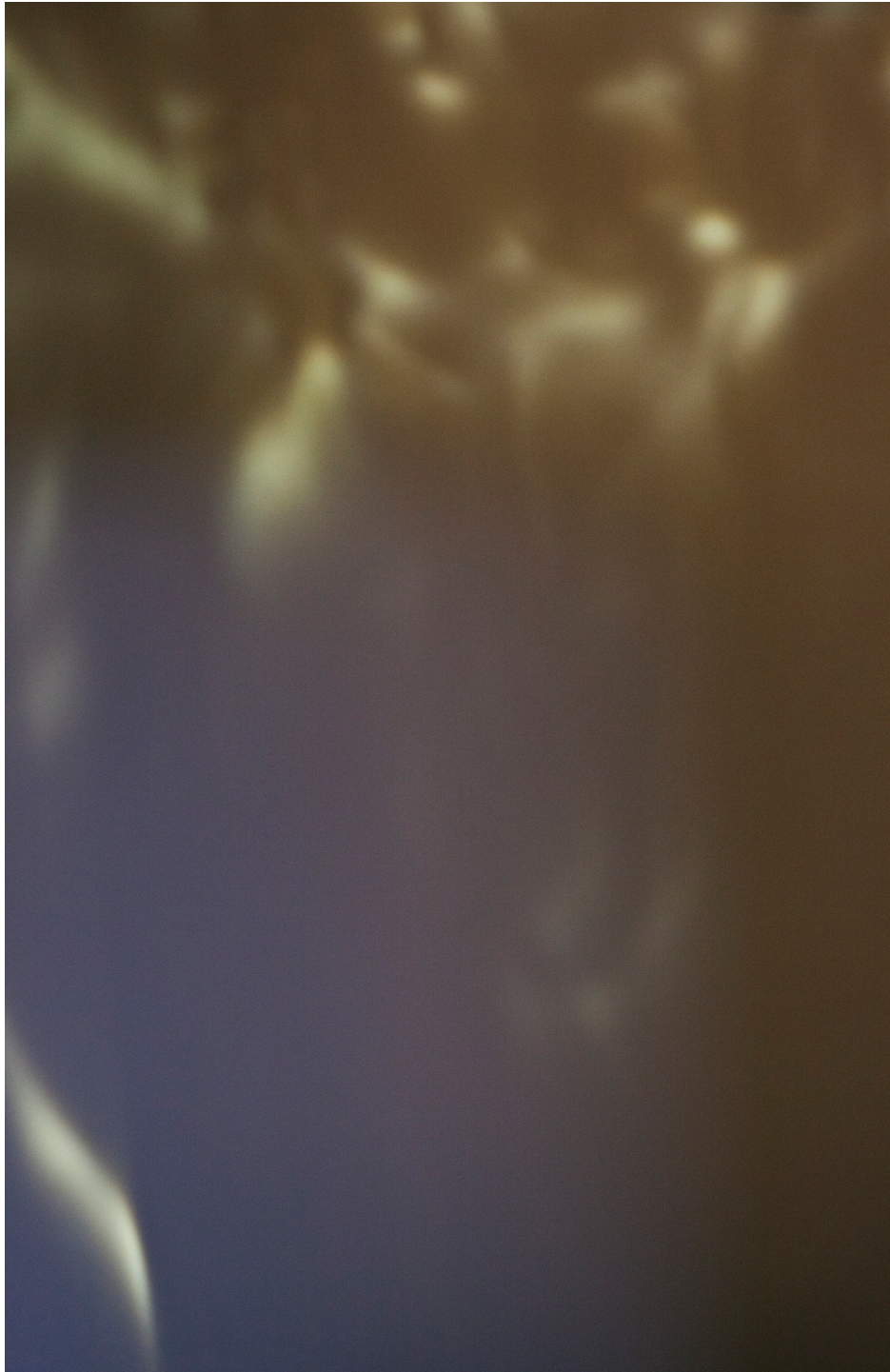
EW: Traces of this can be seen as a historical echo. When I first started thinking about work for the show at Andrea Rosen in 2008, it was the 40 year anniversary of the '68 protests, and there was a corresponding academic revitalization of a particular line of leftist politics—Autonomia, The Living Theater, and so on. Of course, the '68 leftists were looking back to the French Revolution, which is partially how you arrive at Weiss' Marat/Sade, first staged in English in 1964. It is set in a French psychiatric ward in 1808, which in-turn, is the setting for another performance, a play-within-the-play, acted out by the patients and focusing on the French revolution and the murder of Marat, who was the most radical politician and writer of the period. The patients rebel against the bourgeois hospital director and refuse to perform their written roles, instead mixing subversive political statements with their own subjectivities—in effect, calling attention to (and scrambling) the attempt to construct a neat, discursive account of these historical events.

Additionally, you had a number of Marquis de Sade movies coming out in the late 60s and early 70s. Somewhat less obvious is the corresponding neo-classical revival that pops up in fashion, interior, design, and also in cinema. The First French Republic, of the post-revolutionary era, was looking back to the Roman Empire as a model of democracy and also, quite consciously, for aesthetics. Of course, they also ended up with Napoleonic imperialism... So I'm quite interested in the process by which historical events are reconsidered. Precisely because there is no way to articulate the non-visible or un-thought until it has been imaged, it is quite difficult to think about events in the future without relating their potentials to events of the past.

WG: Marat's shadowgraph is a method of flow visualization, and is used today (though in a much more complex form) in Schlieren photography, which aeronautical scientists use to image fluids. While looking at your work, my thoughts turned to the economy and its dependence of capital flow, on constant investment and expansion. One could argue that financial capitalism is the un-thought or un-thinkable condition of contemporary subjectivity—the system is too abstract, it pulls upon so many capacities and dimensions of corporeal experience, such that it is effectively non-cognizable. But perhaps it can be rendered sensible along an aesthetic register? (This is how I understand Fredric Jameson's well-known call for a "cognitive mapping" of our contemporary juncture.)
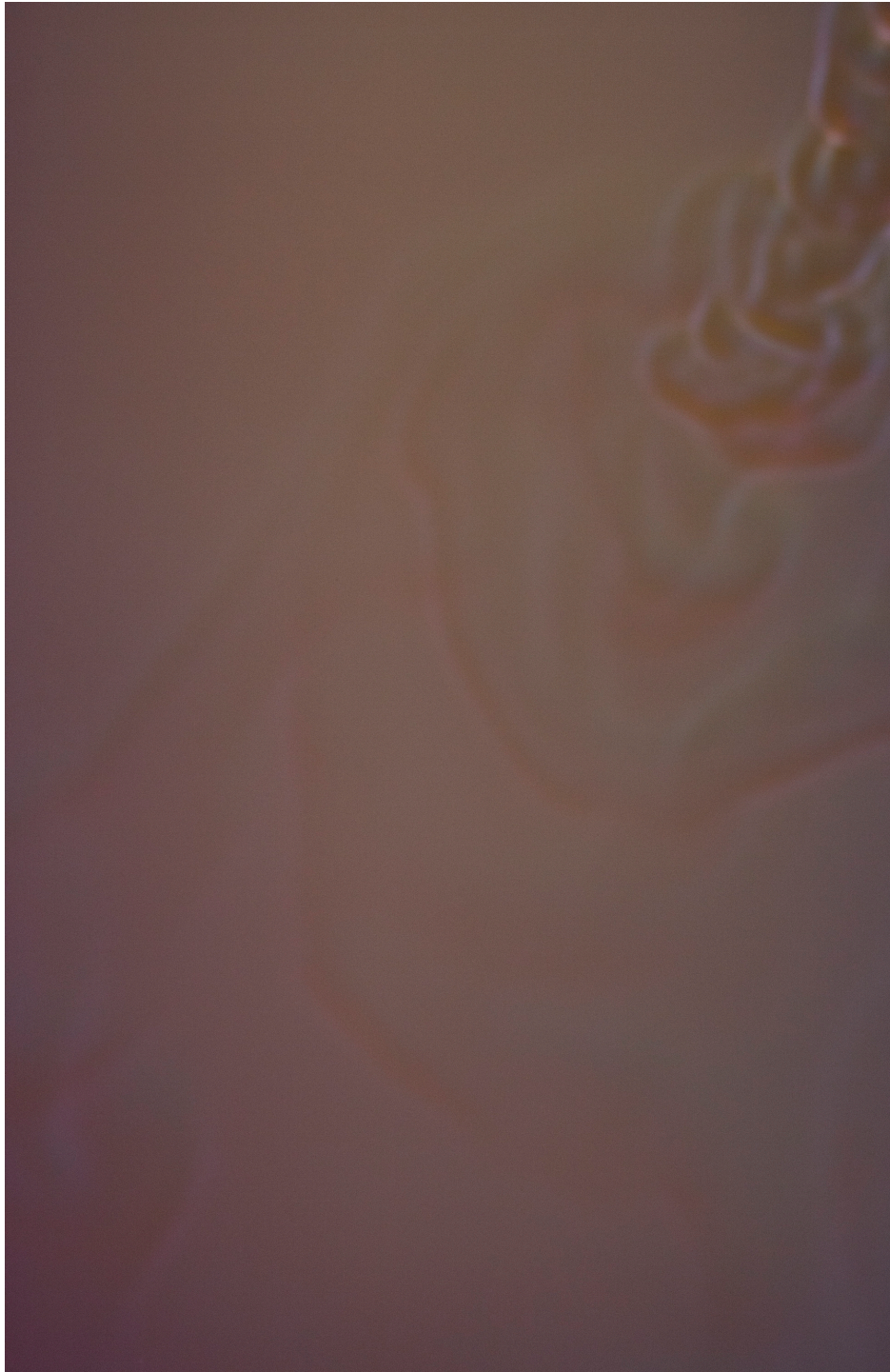
So, while photographic practice is widely accepted to traffic in the 'objective' or 'real,' translating the look of an object onto a two-dimensional surface, your work strikes me as developing with a much more nuanced perspective: the image does not represent something but is rather developed in response to movement, as the (necessary) means to deal with fluid events. A photograph does not depict an object but renders sensible a flow. Perhaps we always need an image?

(DÉCOUVERTES DE M. MARAT SUR LE FEU, L'ÉLECTRICITITÉ, ET LA LUMIÈRE, 1779), 2012
COURTESY OF ARTIST AND LAUREL GITLEN GALLERY

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EW: While the myth of objectivity has been under attack within the fields of photography and film for some time, you don't find these critiques within the expanded mode of image production found in scientific discourse: data visualization and other imaging techniques. Clearly, the sciences hold to a different set of conceits, necessary for the production of truth—if by "truth" we understand "data." But as you mention, the sciences have been quite good at flow visualization.

When dealing with something as complex as the circulation of capital, it is useless to think according to a hierarchical logic. Financial capital certainly doesn't operate vertically, or even according to the exchange of goods; of much greater importance is the flow of data. So I think it might be quite valuable to consider how these types of visualizations can be used to develop new aesthetics that reflect the fluid economies of information, but at the same time allow for a critical perspective on the truths they claim.

What enthralls me about Marat's shadowgraph process is that there is no object per se—the process deals strictly with differentials in homogenous media (such as air or water). That is, the shadowgraph deals directly with the information generated by a physical system. I like to think of the shadowgraph as pure Image: external to the photographic subject/object dyad. It is a mode of abstraction that doesn't turn to the classical model of mimesis for its identity. As you said, "the image is response to movement." In the case of this series of work, one could consider the shadowgraphs as the imaging of speech utterances—which is to say, they are simply images of moving air. It's really dumb! A lot of hot air! But then all speech is hot air in this sense.

WG: You've stated elsewhere that your work is interested in the material construction of history, but here we have another consistent focus: the non- or immaterial; these surfaces, textures, or renderings that mimic solidity but on second glance lack material support. This makes me think of another technique of which Marat was surely aware—trompe l'œil painting. It's a technique that draws upon an exchange between image and reality, only to reinforce, one could argue, classical notions of vision and representation as based on mimesis, the primacy of the original, Euclidean space, these subject-object dyads. Is illusion (for lack of a better word) at all a consideration in your work?

EW: I think you're right—'material construction,' as I've described it in the past does not grasp the whole issue—but what I would claim is that these binaries (image/reality, thing/information) are false distinctions. Instead, there is only information; or rather, there is only image. Note that this claim differs from saying that perceived reality is some sort of subjective abstraction. Rather, it's to say that all information has physical bases.
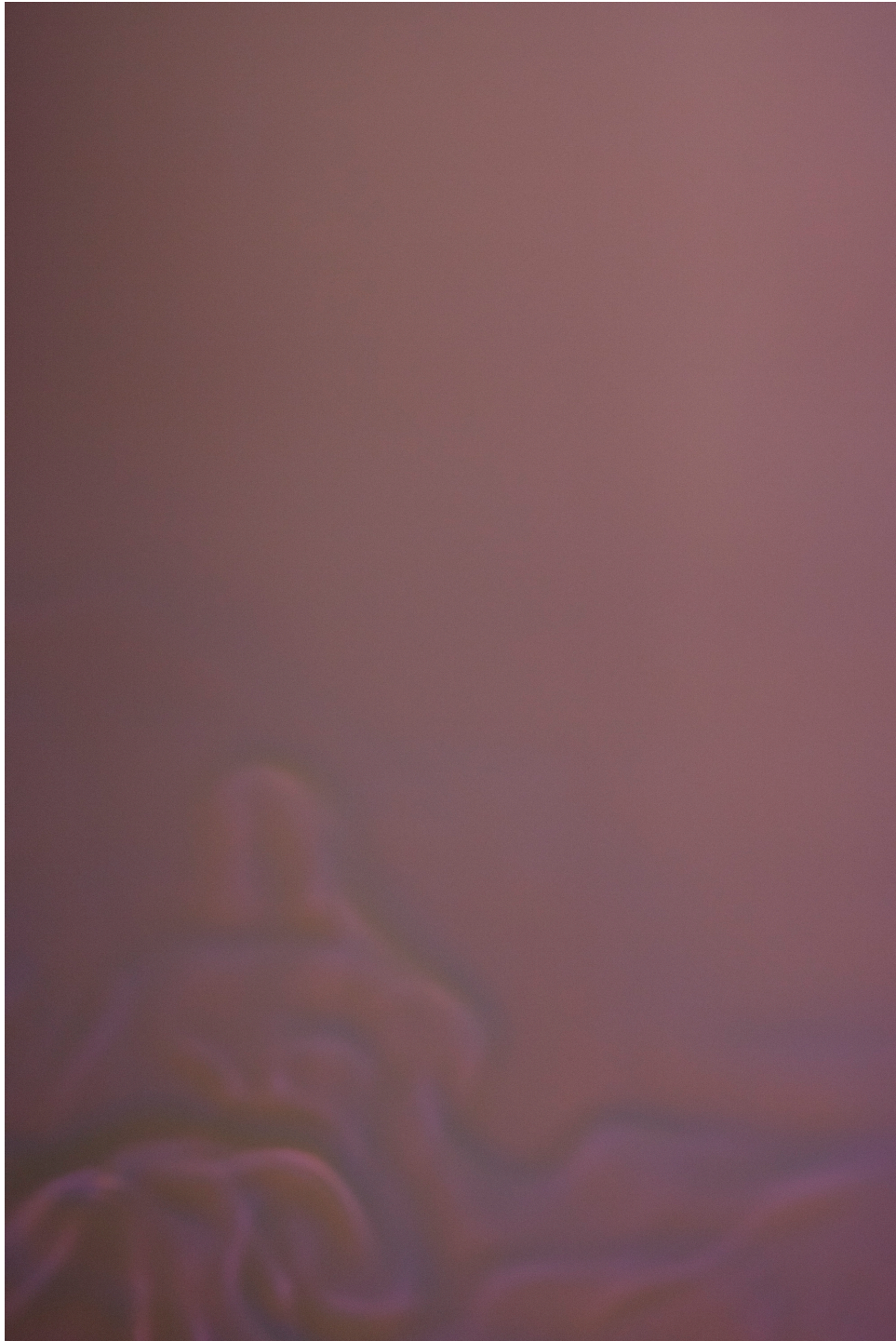
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Trompe l'œil touches on this in an interesting way, but I hadn't given it any thought. What would it mean to claim that History is a sort of trompe l'œil? Because there is certainly an aesthetics of historicity. For example, what is the aesthetic implication for the sequential conception of history (i.e., progress), which took shape towards the end of the 1700s? Foucault wrote that the transformation of time from a periodic to a progressive form during that century made possible the codification of money as wealth. In turn, this allowed for the development of a science of wealth—basically the study of finance as we think of it today. So there are some strong arguments that this is when time and money became linked. In fact, Benjamin Franklin coined the aphorism "Time is Money" right around the same period. This model of time holds up well into the 20th century.

Now this concept might be shifting again. New theories in physics are starting to leak into the culture at large, which is reconfiguring our notion of time. This is a completely unfounded claim on my part, but I'm inclined to believe that our conceptualization of time is shifting towards a statistical model. The modern sense of progress, in which the future is always a distant horizon, is drifting towards something like a cloud of probabilities: a set of potentials of which only certain become real. If you look at the recent events in the market, it appears that the financial sector has been functioning in this mode for a while. Liam Gillick wrote something relevant here in his 1999 essay Prevision. Should the Future Help the Past?: "There is a fundamental gap between societies that base their development on scenarios and those that base their development on planning. It could be argued that the great Cold War divide in socio-economic structuring was rooted in the different kinds of results that you get if you apply either one or the other techniques to working out how things might end up in the future."

It seems to me that there is a close link between scenario planning and probabilities. In my own work, I'm trying to develop some proposals for exhibition models that take into account this probability driven understanding of time—not just as a means to reconfigure history, but to try and understand how history relates to the way we think about the future. How our image of the past is formed through the relation between a given arrangements of artifacts, and also with the relationship between the objects and the display apparatus itself.

WG: How do you understand the role of exhibition, the display apparatus? Could you elaborate more on this relationship?

EW: As with virtually all contemporary art, my work is embedded within the space of exhibition. For this reason the display apparatus becomes the locus in which larger concerns intersect with the field of art. And those display systems have their own history and implications. To give one general example, the glass panes used in museum vitrines share a common technological development path with industrial optic manufacturing technologies. Saint Gobain, founded in 1665 as the French Royal looking glass manufacturer, was largely responsible for the propagation of plate glass (supplying sheets for the Crystal Palace in London) as well as some of the earliest large-scale telescope optics during the industrial revolution. So I tend to think of the vitrine itself as an optical device that images its contents in a particular way. Understood as an imaging technology, the display system opens itself to a number of possible reconfigurations, which is what has led me to working with polarizing films and other optical materials in some of my work.

WG: I want to return to something you stated previously. "There is only information; or rather, there is only images." I like this formulation very much. It strikes me that your work proposes an aesthetic notion of "experiment," which pushes back against the everyday connotation of this term. Normally, experimentality is tied to scientific practice alone. Artists make images, but it feels odd to claim that they "experiment" with them, at least in the scientific sense. Here again the two discourses are quarantined away from one another: science disavows its own aesthetic dimension, and art abdicates its capacity to make truth claims.

What I'm trying to get to is this: Your work seems to de-naturalize these exclusions by foregrounding the experimental character of aesthetic production. Could you say more about how you understand the connection between art and the materiality of information? Put otherwise, why bother to make images (think, experiment, produce) like Marat? I ask because it seems to me that when conjoined, these two concepts—experimentality and aesthetics—provide a very strong basis for developing non-linear or anti-hierarchical modes of interaction with the world. A sensible attunement to flows rather than linear extension and domination...

EW: I really like this thought but it's a tricky question. First, maybe we should step back and work out what is meant by 'experimentality,' because, in fact, I think that term is not altogether uncommon to the discourse on artist's studio practices. However, what I think you're getting at, and what I would agree with, is that the meaning and form of experimentation is quite different in artistic versus scientific methodologies. In science, experimentality is a highly procedural, yet provisional activity that produces streams of information, which are then ordered into a figure. As such, the scientific image is not merely the product but also the process by which experimentation is effected; obviously, this is quite different to how images are treated in art. For the latter, experimentation is performed for the sake of the image alone (and in this sense, it could be read as a less problematic synonym for 'creativity').

Maybe that's too narrow. In any case, art has a tendency to succumb to the ordering procedures of science— for example, by organizing works into classification systems, or by subjecting it to the rules of finance —that diminish its ability to make what you called "truth claims." There may be some recuperative potential for artists to incorporate this form of experimental production: to reconsider the image as an instrument rather than an artifact. To redeploy the image, in other words, for alternative logical regimes. As you said, the ideal is for some sort of "sensible attunement to flows rather than linear extension and domination." Perhaps that partially answers the question.

WG: You've mentioned taking notice of discussions surrounding quantum theory, particularly its ability to foreground that certain facts are fundamentally unknowable. One of the things that intrigue me about this is that such insistence on unknowability arises precisely from remaining close to the material. There emerges a strange sort of convergence between scientific materialism and discourses of mysticism. Does this sort of convergence inform your work? Specifically, I'm wondering whether aesthetic production provides a kind of supplement to this convergence, or a way of developing it beyond the aporetics of the material and the unknowable.

EW: Whenever science reaches the limits of it reasoning capacities, it tends to bump up against mysticism. This was much more apparent prior to the 20th century, when spiritualism and science seemed to have a lot of common ground. However, the impasse of the unknowable in physics began with the well-known Heisenberg Uncertainty Principle, which basically states that the act of observation itself alters and thereby limits what can be know in a subatomic system. This is enormously different than what Newton would have likely claimed: that either something is in the domain of science, and therefore discoverable, or it is in the domain of religion, in which case it is a matter of faith.

With modern physics, there is a new domain that is both unknowable and outside of the purview of God. It's as if an entirely new class of reality suddenly emerges out of the early 20th century—not through the traditional means of discovery, but through a redefinition of materiality. So in this sense, yes, there is a relation to, say, Animism, where matter may take on meaning in excess of itself.

I would point out that quantum physics adds a third term, which is probability; the event is not an indeterminate void, but rather there is a cloud of potential events. This is where it starts to break away from traditional mysticism. In any case, both physics and mysticism have a common antecedent in that they aim to give meaning to the sort of dark bits of reality—I think they tend to co-occupy territories of knowledge that are not fully defined and so offer potential for creating new instruments to image the world. Perhaps this is where aesthetics can leverage the convergence that you've mentioned.