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Erin O'Connor

New School for Social Research, New York, USA

## The Centripetal Force of Expression: Drawing Embodied Histories into Glassblowing

### **Abstract**

Getting at the tacit understandings of an artful practice is critical in coming to understand the processes of creativity. To achieve this, the researcher, specifically the ethnographer, must place herself in the position of the maker, that is she must herself, make and create. This article provides an account of arriving at the methodological imperative of *in situ* ethnographic research through actual ethnographic research on the relation of maker and material. From an *in situ* position, it theorizes the modalities of expression in practice, from problem-solving, to personal style, to the intentional drawing in of embodied histories in practice. This incorporation of varying embodied histories into a current practice is then explored as the possibility for affecting what is recognized in the field as "new" or "innovative". We will see, however, that affect is grounded more in the corporeal revealing of unexpected aspects of the material worked up.

### **Keywords**

Embodiment; Expression; Practical knowledge; Art; Glassblowing; Epistemology; Ethnography; Phenomenology; Materiality; Innovation

Expression is never solely of one art alone. That is, when we practice an art, such as glassblowing, we express more than the practice of glassblowing itself: we express an entire history of learned corporeal knowledges. The manner in which an embodied history is brought to bear on an artful practice differs across the spectrum of proficiency of a practical knowledge, such that it may bring about adaptation, more advanced problem-solving, the emergence of a individuated style, and work which appears new within the field – all modes of expression. Though we will consider these manifest modes of expression, this analysis will focus on the dynamics through which they are achieved, considering the glassblower's level of embodied knowledge and the ability this engenders in the glassblower to draw from other forms of practical knowledge – to make lateral shifts and metabolize her surroundings, whether material in terms of matter or place, or embodied in terms of personal history. These abilities, centripetal in character, since they draw in, gather to, and incorporate, we will see allow for individuation and affect the "new" which is perceived in the final work within art worlds as style and innovation. What it points us to sociologically is the significance of embodied history in these socially perceived accomplishments. It

is through examining the centripetal force of expression that we can understand the significance of embodied history in the creative process.

The body, an expressive vehicle, will be the seat from which these centripetal forces are investigated. From the body, we investigate how corporeal knowledge informs the breadth and depth of what the maker is able to draw into her practice from her embodied history. We will see that the limitations that her skill places on her relation with the material will determine the extent to which she is able to productively draw in other forms of knowledge, to make those lateral shifts. With some level of acquired proficiency, we will see that the maker is able to incorporate other domains, to put them to work – she develops a metabolic relation to what lies at the periphery. Peripheral knowledges, when drawn into a given practical knowledge, can affect metamorphoses of that practice. It is this metabolism, an affect of the centripetal force of expression in relation to embodied histories and practice, that is mapped throughout this essay. Thus, we bring to an understanding of artistic expression, modalities of corporeal knowledge and multiple embodied histories at work. This allows us to address the generative force of artistic expression without reducing it to a reproduction of social forces or a chimera of unique subjectivity.

### **Coming to an *in situ* ethnography of an art**

The need for *in situ* ethnography in understanding the arts is not obvious. I attempted for the first time to explore an art ethnographically in the summer of 2003. From New York Penn Station, I set out on a bus to a meeting of rustic furniture makers in the Catskill Mountains intent to investigate how rustic furniture makers read and gave expression to the forest wood when making their pieces. Though I had read ethnographies and had been given ample instruction in the "how to" of ethnography, once in the field, I did not really know "how to" do ethnographic research. Specifically, I was unclear of how to do the 'participant' of participant-observation. Though enrolled as a participant of the rustic furniture gathering, I felt obliged, as a researcher of the small group, to remain affectively and practically detached – my enrollment serving only to legitimate my presence. I noted the difficulty of "participating" in my field notes:

Seven men and five women are whittling. The others observe. I myself have taken a stick because one of the women had asked me if I was going to whittle and when I said that I really didn't know because I was actually just observing for research, the look of confusion across her face made me feel like an absolute fool. So I took the small jackknife provided and skinned off a few strips of bark, revealing its fresh-smelling spring-green underside and moist wood within, hued like the meat of an almond. Despite the visual and olfactory pleasure, or maybe because of it, I felt uncomfortable 'participating'. I should not be whittling, I should be observing, I thought to myself. I've whittled walking sticks many times in my life – but only while walking in the woods because I needed a walking stick – never under a tent with a dozen other people, who I'm supposed to be observing. It is odd. Also, it seems strange for the sociologist to be 'whittling'. I go between whittling and observing. (Field Notes, July 15, 2003)

My struggle to conduct field work and, moreover, to draw conclusions from this field work, was obvious in the paper I submitted for the ethnography seminar in which I was enrolled for doctoral coursework. I intentionally removed myself and my experiences, which I had written in my field notes from the final text, not realizing that

this foiled what I endeavored to understand. Though I had tried to understand the rustic furniture maker's relationship with the woodland material and the significance of this in their art, I reached a conclusion in the seminar paper, "Rustics 2003: A look at the craft ethic and future of a small group of rustic furniture makers" far from that intent:

But rustic furniture making, in establishing itself as a field, has in fact transcended to an extent making outside the capitalist realm to which it was, and still is, sincerely committed. Though the tradition of making will continue, the field, reified in Shane's publications, can be appropriated to other ends, such as global business deals. This testifies to the ambiguity of the craft of rustic furniture making, more than the interpretability inherent in the organic approach to rustic furniture making. It is a field open to interpretation: as such it is prime for global patronage in a way that the fine arts, too often committed to systems of ideology and unable to be understood, even if abstractly, as artful work aimed at well-being, cannot. The question for rustic furniture makers will be how, and if, to square the ethos of the craft with the publications that define the field, and consequent funding opportunities. (Seminar Paper, July 2003)

Poor writing? Indeed. But more importantly, the conclusion in no way follows through on my original intentions to explore the maker-material relation in crafting rustic furniture. Rather, it is unintelligibly laden with the jargon of generalized theories of capitalism and systems of patronage as frameworks for analysis. Such a conclusion is evidence not only of being a young graduate student anxious to be perceived as she perceived her textual mentors – theoretically grandiose – but, it is also indicative of the limitations of ethnographic methods for addressing the questions of processes of creativity and the consequent knowledge and lifeworld production through disembodied discourses.

The ambiguity I experienced as a researcher in regard to my role in the rustic furniture gathering – to whittle, or not to whittle, to participate, or to observe – was critical in learning how to do the fieldwork that was necessary to get at the questions I sensed and later came to articulate concerning the processes of creativity and artful practices. At this point, I did not yet know how to account for experience in the research, or in the final writing, nor did I recognize the significance of my own body and its situatedness in researching the types of questions I yearned to reflect upon. I denied the presence of my body and forced my field notes into systems of patronage and theories of global capitalism.<sup>1</sup> Though I had experienced dissatisfaction with cramming my field notes into already articulated sociological discourses and found what I had written to be an inept portrayal of the craft I wished to elucidate, I did not yet understand what the shortcoming of my approach had been.

Despite this, I pushed forward in my interests in the processes of creativity that fall, trying to concretize a research proposal for my dissertation. Though I had been vaguely advised during a meeting to spend a good year reading all of aesthetic theory, I sensed, the ambiguity of my summer project still lingering, that the debates of aesthetic theory would address my interests no more effectively than had theories of patronage and global capitalism. Determined to persevere and sort out the summer failure, I contacted the educational directors of numerous craft facilities in New York City in hope of finding a site to conduct further ethnographic research. By the end of the week, I found myself at New York Glass, a not-for-profit glassblowing studio, discussing the possibilities for research:

So is your question on the difference between art and craft? Do you just want to observe?’ the educational director asked me. ‘Well, actually, I’d like to enroll in the course, to actually take the course. You see, I do ethnographic work, which means that I do my research through participation. It is not so much the question of the difference between art and craft that I’m interested in, as how we actually learn a skill, like glassblowing – I’d like to actually learn myself’ I replied. (Field notes, September 23, 2003)<sup>ii</sup>

Though the beginning glassblowing classes for the fall semester were enrolled to capacity at New York Glass, the educational director agreed that I could “sit in” on a class – we agreed to the Sunday morning beginning glassblowing course. There was a thrill to just being in the glassblowing studio – there is an ever-audible gentle roar, the heat carressing one’s skin, even from afar – the gas flames of the glory holes, in which the glass is reheated while being worked upon, the breathing hot furnaces of molten material, gas torches, alit and glowing. Heat reaches through light cotton clothes, presses against tough denim, and sends synthetic nylon to skin-scorching temperatures; it fills the nostrils with warmth, dirt, burning wood and newspapers, sweat. Warm hues are ever-emergent from behind the opaque doors of the furnaces, the interior of the glory holes and the molten glass itself, ever-luminous. Voices and orders and joking intermingle – glassblowing is always a collaborative endeavor.

Standing amidst this to “observe”, was again, like at the rustic furniture gathering, awkward – the role I had ascribed myself being the voyeur. After having observed the class for only one week, it was with some relief that the instructor, encouraged me in a tone tinged with insistence to blow glass myself. Not all of the students attended every session and one even dropped out – it was exactly the opportunity I had not known I was waiting for. I was somewhat hesitant, as I had not paid for the class and did not want to step on the toes of the paying students. His teaching assistant encouraged me, pulling a pipe from the warming rack so that I could take my first gather of glass from the furnace.

The molten glass at 1800 degrees Fahrenheit, unlike the docile branch which I was whittling at the rustic furniture gathering, did not allow me to occupy an ambiguous role. Gathering the glass seemed dangerous, fears of being burned raced through my mind, misperceptions of being singed by the gusts heat were felt by my body, while wifths of victory nonetheless wafted under my ego’s nose – in that fear and thrill, I was completely immersed and attentive to my body, the glass, and the blowpipe – that relation of maker and material via the tool that I had wanted to explore at rustic furniture gathering. Though I had been theoretically curious about this relation, I had not previously experienced the opening that immersion, that complete mode of *in situ* ethnographic research, made possible for coming to know and thus understand this relation. The intensity of the moment thwarted all reflection and analysis and made obvious, or felt, the acquisition of my body itself of the knowledge called glassblowing. Taking the blowpipe into hand drew me out of the ambiguous terrain of being a visual observer of a corporeally-known process: it disposed me so as to know the tacit workings and modalities of the practice. That creative expression that I longed to understand was embedded in the tacit understanding of my own corporeal practice.<sup>iii</sup> The fortuitous immersion was the beginning of my understanding and writing on the embodied processes of creativity.

The immersion instigated by the molten glass placed me within that maker-material relation that I longed to understand. I gathered in order to get away from the furnace, that intriguing and still-threatening tank of glass – I *responded* to the

material, albeit it in a "fight or flight" manner. With the development of skill, my ability to respond to the material progressed beyond "fight or flight" to an ability to control the glass, to shape it. While an observer may note this shift in the novice's relation to the glass, the dynamic that substantiates this development would remain elusive. Such a shift is achieved through the acquisition of technique – that visible and observable development in the novice's practice – but also through the cultivation of the capacity to respond to the material. The novice must learn to respond to, and not simply act upon, the glass – to *listen*. This, the listening to and appropriately responding to the material, is the dialogical dynamic of the maker-material relation known in practice.

The glassblower listens and responds to the glass corporeally, with a body equipped for listening to glass; equipped with techniques and skills that act like a type of grammar, allowing her to express that which she becomes increasingly skilled to perceive – technique activating, much like words and gestures, meaning. In this sense, her ability to listen is limited by her corporeal capacities, more specifically the relation that the glassblower achieves both through and without techniques with the glass. In this dialogical manner, the glassblower through her corporeal capacities expresses the glass. I literally could not access those processes that I longed to investigate at the rustic furniture gathering without being embedded, only half-heartedly whittling the walking stick, fixated on, in fact paralyzed by, observing. Only in coming into the dynamic of practice, was I able to begin.

### **Equipped to problem-solve**

It is often said that glassblowing is not about blowing the perfect piece of glass, but about coming up with effective solutions to the problems that consistently present themselves in practice. Such situations that arise are often referred to as "unpredictable". When I began to conduct interviews in the spring of 2004, two of my first interviewees, though speaking of the need of the novice to learn to control the glass, also spoke of the lore of the unpredictable. Paul, my first instructor, spoke of it directly: "Part of the thrill of glassblowing is that you don't know where it will take you. That it is so completely unpredictable" (Interview, April 13, 2004). Rob, my second instructor, spoke of "magic": "Making glass is like making magic, it's just like you've never seen it before, you have no idea what the hell is going on. And then sometimes when you've done it for years, you still have no idea what the hell is going on" (Interview, March 30, 2004). Though both Paul and Rob extolled the enchantment of the unpredictable, both also, as instructors, stressed the importance of learning how to cope with the unpredictable, or those "problems" that nearly inevitably emerge in the course of practice.

The unpredictable presents itself, for someone equipped to deal with it – to make those "proleptic adjustments to the demands of the field" (Bourdieu 1990: 66) – as a problem to be solved. In practice, what "solves" the problem at hand is not a moment of cognitive reflection, but rather the response of the spontaneous dispositions that are equipped to manage the situation: "...corporeal knowledge that provides a practical comprehension of the world quite different from the intentional act of conscious decoding that is normally designated by the idea of comprehension" (Bourdieu 2000: 135). The beginner fashions her corporeal capacity to deal with problem solving through apprenticeship, the logic of which consists in the oscillation between practice and reflection: the beginner practices, reflects upon her practice, adjusts her corporeal dispositions to better align with instructors' expectations, and,

so transformed, once again practices, which allows for incorporation and thus the recession of this new corporeal disposition into unconsciousness.<sup>iv</sup> It is with the accrument of these “improved” corporeal dispositions that the novice develops the ability to “problem-solve” in her practice – her body comes to spontaneously recall the appropriate dispositions needed for successful execution of a technique or completion of a vessel.

Unequipped with this corporeal knowledge specific to glassblowing, my beginning glassblowing partner (in a winter 2004 course in which I was actually enrolled), Annie, and I failed to handle an unforeseen problem when attempting to blow a standard vase. The blowpipe carried sloppy gathers of glass at its end to be blown out into an egg-shaped bubble. Annie heated the glass and when returning to the bench to shape it, sat down, and asked me to blow. In typical beginner’s coordination, she had overheated the glass, and I, not noting her excessive heat, blew when asked with the force of industrial bellows – the egg bulged into a large amorphous blob. With a deep sigh of frustration, she took the blob to the glory hole, a cylindrical barrel-shaped reheating furnace and rested the pipe on the hip-height yoke, rotating it rotisserie-style and allowed the glass blob to reheat within the glory hole. Carelessly, she diverted her attention away from the piece in the glory hole towards me and chatted about the tribulations of rental housing in New York City. Soon, reckless flopping at the end of the pipe caught her attention: “Shit, what do I do?” she rhetorically asked and in place of doing anything, stopped turning the pipe and attempted to lift the glass, now stuck to the doors of the glory hole, out. Her response to stop turning, however, was the wrong response: centrifugal force keeps the glass on center.

Wresting the now overheated-glass from the glory hole's doors, the piece began to stretch and stretch, and once out of the hole, hang and hang – it was nearly two feet long. We were both looking at it, not knowing what to do. The two guys, who had been working at glory hole #4, were cleaning up their station and just walked by, ‘You can save it, you can save it!! Make a cookie for it!!!’ the one called out to me. I had no idea what he was talking about. ... He quickly gathered some glass and let it fall onto the marver and pressed it down into a “cookie” disc with the paddle, while the other lowered Annie’s long, long piece onto the “cookie”, creating a bottom for the otherwise too-thin and overextended ‘vase’. ...‘The next time it happens you can just jump up here,’ he said jumping onto the gaffer’s seat, ‘and you can hold it while your partner necks it. Then you can put on the cookie and break it off at the neckline’. Annie heated her ‘cookied-vase’ and we looked on at his mimed demonstration, giving him the ‘yeah, sure, no problem...yeah, right, we have no idea what you're talking about’ head nod. (Field Notes, March 19, 2004)

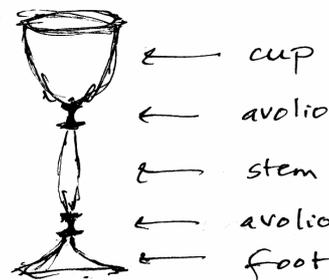
The turn of events surprised us – the stretching of the “vase” into a “tube” was not part of the plan and we lacked the resources, namely the corporeal know-how, with which to manage the unpredictable situation. While this occurrence had literally caused a stalemate of action, the other experienced glassblowers had perceived the unanticipated as a problem to be solved. Though they could identify a problem within the unpredicted occurrence and spontaneously respond, Annie and I could not. The novice, though she can search, cannot see the problem, i.e. that to be solved, without corporeally already knowing the answer.<sup>v</sup> Annie and I, though in the glassblowing studio with blowpipe in hand and glass on its end, were not even at the cusp of this accrued corporeal capital, but rather at the very fledgling beginning of

basic skill incorporation. Our corporeal capacities, so limited, did not allow for us to identify and corporeally respond to the problem.

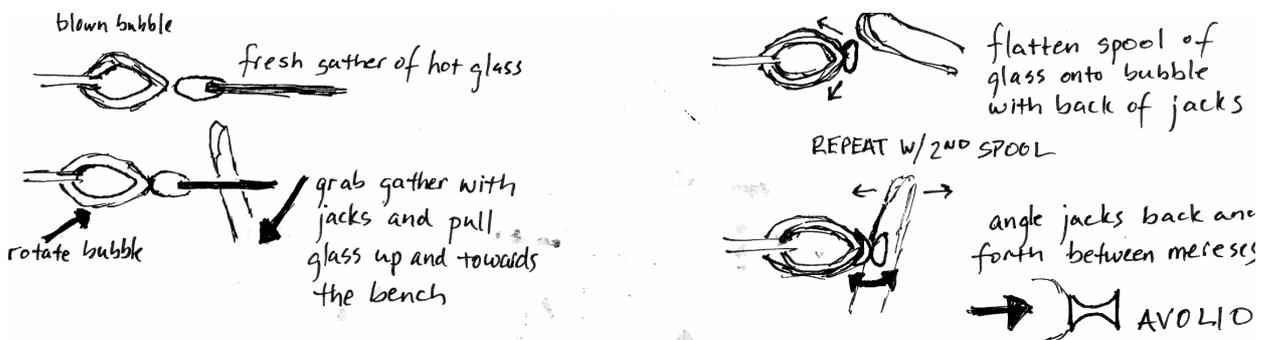
What was interesting about the glassblowers' responses was that they had each offered their own solution. While the one glassblower recommended that one of us jump up on the workbench to hold the piece vertically while the other necked the piece, the other glassblower off-handedly offered, "or, you can just sit down at the bench and neck it yourself". Though not very nuanced, this example does suggest that corporeal perception of a problem and the consequent solution is a *personal* configuration. That is, given the same problem and means to address it, each person would "solve the problem" at least slightly differently. How an individual handles the glass, tools, partners – the pace, the hand's "touch", the level of composure, the affects of ease or difficulty, in a consistent manner, is recognized by herself and fellow glassblowers as her "working style". The way in which she perceives the glass, itself a corporeal capacity, and the mode of working with the glass to which her corporeal perception dialogically lends, when consistently reproduced achieves a formal style, a steadfast manner of problem-solving.

### Getting at the personal of practice: the development of style

Adam, the instructor of the Advanced Handwork class, in which I was enrolled in the fall of 2006 spoke of the relation between hand movements and an *avolio*. An *avolio* is a small hourglass-shaped piece of glass that connects components of a goblet, such as cup and stem, or stem and foot.



Components of a goblet



Typical steps for making an avolio

When you're making the avolio, make sure that it is stable. ...You need a nice sturdy avolio so that you have a good touchdown for the bubble for your foot and so that you can open it up," he said. He widened the lines of the middle curves of the 'bad' avolio he had sketched on the chalkboard. ...You know everyone has their style. You can actually tell whose cups are whose by their avolios sometimes – some are real stout but without good proportion, someone like Jim's have wide pads and a narrow waist, or Dante's, which are shaped like two perfect letters 'C's back to back... But both of theirs have nice proportion. Whatever your style, the proportions are important – that'll make a nice avolio". He continued to speak of the nuances of his wrist motions when shaping his avolios – the slight pressure, the angle of his wrist, the breadth towards which the jack handles reached in the pendulum-like motion that shaped the hourglass and to demonstrate the different angles of the hand used to achieve different styles of avolios." (Field Notes, October 2006)

While he spoke of style in a more formal tenor with attention to proportion and graceful lines, he grounded these styles in the working style of the glassblower. Thus, more advanced glassblowers encourage novice practitioners to watch the hands of the glassblower demonstrating, *not* the glass. While the style of the glass itself lends a working style to those who work upon it, the subtleties of the glassworker's corporeal movements also inform how techniques render the final form. The working style of the glassblower, though shaped by the glassblowing field also bears the affect of the personal rendering of these expectations. The expression reflects those corporeal capacities, which themselves activate and to that extent set the terms of the dialogical relation of maker and material – that is, determine the extent to which the glass can be "heard". While these corporeal capacities are developed through apprenticeship, incorporation of formalized corporeal knowledge, they bear, as we have seen, differences, such that *avolios* and the goblets to which they belong can be consistently recognized as Adam's, Jim's or Dante's. While we have recognized that a working style is informed by the dialogical relation between glassblower and glass, that corporeal ability to listen and respond to the material, we have not yet explained why working styles differ such that formalized expectations, such as avolios and the specific techniques for making them, carry the "touch" of an individual hand.

Harvey Littleton, credited with spurring the American Studio Glass movement in the 1950s, alluded to an additional stratum that informs the maker-material dynamic:

[A]s long as children are born – and they're born every minute and more often – each one of them has unique experiences from the moment of birth that are waiting to contribute to what they will be. Some of them will be influenced by glass as a material. And they will put all of that unique experience, things that we can't understand now, and they'll bring that to glass. What that glass will be who knows? ...Technique in and of itself is nothing. But technique in the hands of a strong, creative person, like...Marioni, takes on another dimension. ...[Glassblowing training] falls down when it says to a young person, 'Well if you learn this technique, you've got it made. You can be a Dante Marioni...without really investigating who Dante Marioni is, [sic] not only what he does.' Because what he does would not have been possible without knowing him. What his motivations are and so on. (Littleton 2001: 22)

What Littleton extols very frankly is the influence of a person's life history on her manner of glassblowing. The acquisition of technique alone, he points out, will not necessarily accomplish the end towards which those techniques are intended. The critical substratum of technique, and indeed of the glassblower's dialogical relation with the material, her ability to "listen" to the material, is the glassblower's body itself. While Littleton may appear to glorify the individual and essentialize expression in his claim that to be like Marioni, you cannot simply copy his actions, but must also understand what it is to *be* Marioni, his comment houses a significant point for understanding how it is that the *personal* of practical knowledge is possible: corporeal knowledge not of a given practice alone, but rather of an entire embodied history. Tacit knowledge is equipped not only in terms of tools and material, but also in terms of a person's own corporeal history, its modes of embodiment, those dispositions accrued throughout a person's own lifetime.

Previously, I have discussed prior corporeal dispositions as allowing a novice to adapt and manage within a new situation, for example, knowledge of handling fire or hot things gives some general preparation for handling hot glass.<sup>vi</sup> While a consideration of adaptation allows us to understand how past practical knowledge facilitates the acquisition of new practical knowledge, it does not account for why that acquisition, in its expression via technique and that produced, differs from one person to another. Littleton's pointing to life history gets at this – to situate corporeal knowledge within "life history" is to indicate a critical characteristic of all practical knowledge: its situatedness. What Littleton points to in his discussion of Marioni's personal history in relation to the work he produces is Marioni's distinct style brought forth through the meeting of his corporeal history and his glassblowing practice – a convergence of embodied knowledge, embodied histories that affects individuation. To understand how this ushers difference into formalized expectations, we need to gain a greater understanding of the workings of the convergence of accrued corporeal knowledges. Thusfar, we have discussed tacit knowledge of glassblowing against a silent background, the *in situ* embeddedness of the practicing body located within a non-descript, unexplicated glassblowing studio. Tacit knowledge, always a personal configuration informed by a person's life experience, is additionally, however, always also located, that is specific to a place, or types of places. In turning to a consideration of how corporeal histories are situated, we can begin to understand in greater depth the roots of individuation in creative processes.

## **The Place of Embodiment: corporeal knowledge situated**

Embodiment extends the body such that it dwells in and inhabits a world – a dry desert, a forested creek, an open tundra – situations which in turn each evoke practices unique to these possibilities. This dialogical situatedness equips the body, sets parameters for practice. Of this Bachelard speaks of contemplated nature itself aiding contemplation insofar as it already contains some means of contemplation (Bachelard 1971: 77), while Merleau-Ponty argues that materials themselves express a certain "style" (Merleau-Ponty 1962: 455). While embodiment contains and expresses through its phenomenality, its surroundings, and perceives and practices according to the style to which those surroundings lend, this embodied expression is informed as we have discussed, by the person's accrued corporeal history. Practice, then, will always be a convergence and expression of multiple embodied knowledges informed by the place, or situations, of their learning.

In 2005, a thoughtful and acute reader of my work, with whom I was in friendly correspondence, had written to me: "You concentrate mostly upon those aspects of tool which you hold in your hands, leaving the furnace, or the room, even to some extent the bench, in the silent and obedient service...". He went on to discuss the metabolic relation of the various layers of situations, which reciprocally relate to and inform each other. Though striking, I had not known how to approach the "silence" which the reader revealed, as this background was indeed for me, silent. I had not known how to address the situatedness of my immediate practice. The hotshop was an unthematized, "natural" setting for my glassblowing. Thus, I had not thought to ask whether the "glassblowing class" – Hot Glass Subversions – in which I enrolled for a three-week stint at an international glass art institution nestled into the foothills over the Puget Sound on the American west coast, was in the hotshop. "Naturally" I went to the hotshop for our first class meeting. Wondering where my classmates were, I watched the Italian master, teaching the Venetian course, at work.<sup>vii</sup> "Are you coming?" the teaching assistant of my course asked, walking by me and out of the hotshop. My look of confusion followed her and I saw my classmates waiting in front of the neighboring studio. A sense of disorientation took over – my stomach fell. The class I had enrolled for was literally outside of the hot shop. I had only intended to "subvert" technique, not to remove myself from the hotshop.



**Hot shop, left; casting studio, behind to the right**

I went to the neighboring studio, the casting studio. Casting glass is a process in which the glassworker ladels molten glass, using an iron ladle, which can hold from four to ten pounds of glass, out of the furnace into a variety of molds and impressions and onto a variety of surfaces. I ladled glass with the rest of the class as instructed. Following the instruction was the invitation for all of us to continue on our own – that moment to "create" which is idealized as being met with uncontained enthusiasm.

I stood there awkwardly and kind of looked around, hoping for some sign to show itself. I looked at the glory hole located next to the casting furnace longingly and just wanted it to be on and glowing. I watched the others enthusiastically ladleing the glass and felt sort of bodiless - I really just didn't have a place to be. I approached, my instructor, Jocelyne.<sup>viii</sup> I had to start in the bench. Otherwise, I was kind of paralyzed – I thought she

would be disappointed, but I had to ask. 'Um, Jocelyn, would it be ok if I set up a bench? ...um, I don't know what I'm going to do, but I'm feeling just a bit disoriented and feel like I just need to sit in a bench,' I meekly offered, feeling that I was disappointing her 'subversion' expectations, 'I just have to blow glass'. 'Sure, no problem, she replied, calling to the teaching assistant, 'Laurie will you help her set up a bench'." (Field Notes, July 26, 2006)

Out of place, I began by placing myself in the familiar: the bench. Heidegger discusses the collapse of reality when the tool is absent in the context of the missing pen for the philosopher. When the pen is missing from the philosopher's study, the remaining – the desk, the books, the view are cast into suspension because they cannot be turned into the requisite words.<sup>ix</sup> In the same way, the bench and the tools make possible the practice of glassblowing for one who is accustomed to being equipped by these in order to blow glass. In their absence, the glass is rendered inaccessible, cast into doubt. Those things which generally invited my own performance and created the place of glassblowing were missing; my body was out of place, its corporeal inclinations awkwardly figiditing – practice, stymied. An art, whether glassblowing or writing, is wedded and interrelated to the place, which outfits that practice, that equipped scenario which simultaneously equips the body to practice: "[T]hings constantly at hand, with which circumspect being-in-the-world reckons from the outset, have their place" (Heidegger 1996: 96).

I guiltily pulled the bench before the glory hole, which had been fired up at my request and went with the teaching assistant to get blowing tools from the hotshop, that now-other place equipped for glassblowing. Once equipped, the unfolding of the situation I had longed for – blowing glass – still did not happen, my teaching assistant's parting words thwarted my idea of how to begin:

'If you blow, its fine,' she said, continuing with a sleight pause, 'I just think you need to blow what you normally wouldn't blow. 'Ok,' I said, as she walked away, thinking to myself, 'great – blow what I normally wouldn't blow – what in the world would that be....' I had been thinking to just start off with a cylinder – just a working shape since I was alone – and see what crossed my mind along the way about how to 'subvert' it. (Field Notes, July 26, 2006)

Embodied knowledge, as corporeal intentionality, always already arcs toward a solution. My teaching assistant was asking me to employ my bodily knowledge towards that which it did not know. Moreover, though sitting, so equipped, in the bench, the glass remained at a distance – not only due to the expectations 'to subvert', but also due to the fact that I simply did not have a partner. Glassblowing, though one can manage some small objects alone, is a collaborative endeavor. Equipped scenarios, however, invite participants and practice: a swingset, swingers and swinging, a wooden Lightening named Echo with hoisted sails, sailors and sailing, and equally, hot glory holes, hot glass, and glassblowing tools and bench, glassblowers and glassblowing. I stared blankly through the cold blowpipe resting across the arms of the workbench, trying to push my mind's eye beyond the cylinder to which it desparately clung when my partner-to-be, Michelle approached: "I'm going to blow with you," she said rolling the pipe back and forth over the bench's arms.

Stepping out of the hot shop constituted a breach insofar as the references through which situations had come to have meaning, such as hot glory holes and partners, were absent. The critical references which go into creating the practice of

glassblowing were reconstituted – equipping the hot glass with tools and bench, hot glory hole and partner. Situating oneself within the place equipped for the acquisition of tacit knowledge is perhaps the first movement towards acquiring that knowledge. While the introduction to the studio is essentially spatial – the equipment and tools are pointed to and named by the instructor – and I have considered the novice's taking of the tool into hand as the moment that negates the initial spatial relationship – perhaps it is the placement of the novice, a dynamic engagement of positioning oneself towards, that negates the studio as spectacle, along with, or even prior to taking the tool into hand. While the novice takes the blowpipe into the hand to gather glass, so too does she stand before the furnace; while the novice takes a tool, such as the jacks, into hand in order to shape the glass, she does this *after* sitting in the bench – she disposes herself and consequently sets her practice into motion, a temporal engagement with the practice which she had hitherto visually observed. To stand before the furnace, or to sit in the bench with the intent to blow glass, that is, standing before the furnace or sitting in the bench towards blowing glass, with the tool in hand, surrounded by the necessary facilities, including a partner, activates the possibilities of glassblowing. With the situation so equipped, the glass had purposive involvement for glassblowing for Michelle and I. The script or rules for the practice for which we had situated ourselves, however, had shifted. While we equipped our practicing bodies as they were accustomed, the expectations of us had shifted to that of subversion, such that our bodies could not spontaneously respond to that for which they were equipped.

In this awkwardness, we "performed" subversion, blowing out a glass cylinder in a metal mesh box. Similarly to how a novice acts *on* the glass without responding to the material, for example continuing to squeeze in a jackline despite the frigidity of the cooled glass, or continuing to heat the glass in the glory hole despite the fact that the glass has lost all the shape of the prior shaping, given her lack of a dialogical relationship with the material, we forced the glass into an idea of "subversion" – the result was unmoving, uninteresting, boring, forced.



First "subverted" piece

Describing the piece as forced recognizes the linear relationship of the maker to the glass. Though we both had developed at least a minimal dialogical relation with the material, able to both listen to the glass and corporeally respond, we could not address the subversion of the glass corporeally and thus resorted to imposing an idea of subversion upon it. If tacit knowledge arcs towards the known, what is it that we perceive as new, whether in terms of Marion's rendering of an avolio, or Jocelyn's expectations for subversion?

### **The body as expressive threshold of embodied histories**

Earlier that day for the demonstration, Jocelyn had poured glass onto a logged tree stump, found by the school's wood shop and "taken its impression", lifting the cooled puddle of glass from the top of the stump, the stump's crevices, knots, and lifelines "impressed" into it. Growing up in the Huron National Forest, this bridging of glass and wood seemed familiar: I had created with logs, branches and bark – bridges, "fishing poles" with which to snatch moss from the creek's bed, deer blinds, letters scratched onto the peach underside of birch bark, woven branch-shelves, and later, when moving into urban areas, plant holders and sculptural branch assemblages simply nailed to living room and bedroom walls. Just as the studio equipped for glassblowing had "made room" for glassblowing, so too did the stump, and the woodland literally surrounding the glass school, make room for another corpus of embodied knowledge, that of creating with woodland materials. While the bench had created space within which I could dwell, the stump – if I were to create "outside" of technique – seemed a likely candidate. It provided a reference for a different set of bodily dispositions, embodied knowledge, which could be incorporated into my glassblowing practice.

'Um, Jocelyne, would it be ok if I used the stump?' I asked. It was just sitting there in front of the annealers which sat on the other side of the wall on which the forms were hung outside. Had been used maybe once, maybe twice. 'Sure,' she replied, waving her hand in the direction of the stump, 'Go ahead'. I flipped the stump onto its side and rolled it by the folks, who were casting glass into forms on top of the casting marvers in front of the furnace and let it fall back down just to the front right of the marvering table. 'What do you want to do?' Michelle asked. 'Maybe we could do a roll-up with it. Pour the glass onto the stump then roll it up on a collar – try to capture the texture inside, then try and blow it out – make tree trunks,' I replied. (Field Notes, July 26, 2006)

Rather than "subverting" the glass through "undoing" technique, the stump presented an opportunity for a lateral shift, a metaphorical adaptation, a metabolic incorporation, through which two *corpi* of embodied knowledges met; the body, as threshold intentionally drawing in a set of skills associated with wood to metamorphize the practice in which it was engaged.

Michelle and I ladled glass onto the top of the stump numerous times, which burned deep crevices into the wood. We were attempting to "roll up" the impression of the stump, capturing its texture and thus "replicating" tree trunks. "Rolling up" glass involves making a *collar*, a solid round-sided and flat-topped gather on the end of the blowpipe, the circumference of which is equal to the length of the flat glass intended to be "rolled up". As you roll the heated glass collar along the edge of the hot flat glass, it tacks onto the collar, creating a cylinder. When we tried to "roll-up"

the “impression” from the stump, it simply stuck. To get it out of the stump, we had to turn the pipe and try to remove the stuck glass by shoving the glass on the pipe into the crevices, hot glass picking other hot glass up and small chips of charred wood. In the glory hole, the glass expanded like a marshmallow over fire in the glory hole – bubbled and silverized, changing the actual composition of the glass via, we later discovered, a carbon reaction.



The stump progression

The result differed significantly from our “subverted” metal mesh piece. In this scenario, our lateral shift, our metaphorical adaptation and incorporation, though it had not yielded a piece due to the difficulty of working with the material, which, in stark contrast to the fluid softness of molten glass, had become quick to cool and stiff like brittle taffy. Making the metal mesh piece, we had made no such shift, but rather, had uncomfortably tried to make our bodies-equipped-for-glassblowing intentionally make something different through a shift in ideas – “let’s add this metal cage” – we had not infused our glassblowing practice with a different corporeal sensibility accomplished by a lateral incorporation; it had been a linear acting upon rather than a lateral integration.

While the equipped bench had activated the possibility of glassblowing; the stump drew in the woodland surroundings to which the place of glassblowing belonged, activated a type of regionalization, or pluralization, of our glassblowing practice. The peripheral embodied knowledge, that of creating with woodland materials – the context of our glassblowing practice, which then appeared relevant gave us direction – rather than arcing towards that “unknown” subversion and issuing forth sophomoric pieces, our corporeal knowledge was able to incorporate a previous corpus of knowledge such that a lateral shift, subversive through its pluralization, occurred.<sup>x</sup> This drawing in, or “de-distancing” in Heidegger’s terms, is that gathering in of objects as useful things, the drawing of them into context. The stump was peripheral, even on object of an aesthetic gaze, until drawn into practice towards an integration through incorporating two *corpi* of embodied knowledges, a convergence achieved through a bodily intentionality shaped by the depth of life history.

The broadening of practice through the de-distancing of surroundings, which are appropriated through the polycorporeal capacities of individuals’ embodied histories affected the “new”, the distinct. Though the tenets of person’s embodied histories may be broadly shared across persons, such as dispositions related to race, gender or class, or skills related to urban or rural environments, the nuances of each embodied history as well as the manner in which the embodied histories converge, or are integrated, is a process of discovery. Referring again to Heidegger, it is a mode

of "directional discovery" in the drawing of things, or situations, once separate, together through establishing a relevance to each other – a relevance, I would argue, that is corporeally discovered in the arcing, or intentionality, of embodied knowledge towards completion, a sense of resolution, amidst displacedness, ekstasis: an incorporative integration of locale, or immediate with regional, or peripheral embodied knowledges to the effect of unveiling a new aspect of the material such that it affects the new or innovation. It is this directionality that marks this convergence as distinct from adaptation.<sup>xi</sup> Through this lateral shift and corporeal incorporation, the world, here the glass, reveals itself in an unexpected way.<sup>xii</sup>

There is thus an analogical relation between the expression and those converged embodied knowledges from which it issued, namely a likeness, rather than an objective similarity.

I threw up a thin wooden board onto the marver – I didn't want to throw the glass directly on the marver because it would cool too quickly. 'Now take the tweezers and stand on the other side – I'm going to throw this glass up there and we're going to smush it flat with a paddle and roll it up with the tweezers', I said. 'Alright, girl, whatever you want. Lets do it,' Michelle replied. I took that heat – got it ripping hot and swung the pipe just like when you are serving a blown foot – the glass literally did go almost flying off of the pipe – and let it flop down on the board. Michelle stroked the glass towards her with the paddle while pushing down and I pulled on the pipe towards me – fire breathed out the sides of the paddle as she pressed down. We snipped the glass off the pipe by the moile with some confusion – that hadn't really been planned for – and then with the tweezers "rolled it up", by touching one end to the other, charred check-marks of wood and flakes of ash clinging to the hot silvery glass. Turning it over to stand, I said, 'That's our trunk'. (Field Notes, July 27, 2006)



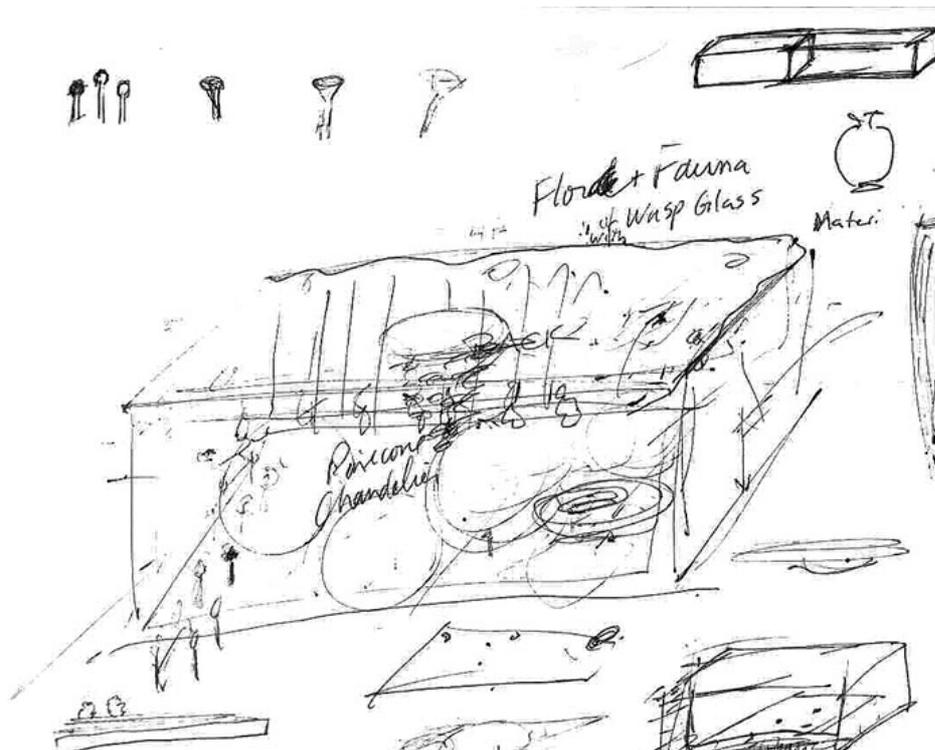
Tree trunks

We had started by trying to roll up the impression from the top of the tree stump to create "trunks", a ten to twelve inch cylinder that literally resembled tree trunks. In making the "trunk" in a way that did not aim to resemble, but rather to evoke, our practice and its expression shifted from one of representation to one of analogy: "Now that's the idea," Jocelyn said with a broad approving smile, as she watched us (Field Notes, July 27, 2006). While the analogy is seemingly perceived in the pieces themselves, the analogical relations are internal. That is, the relation of the practice, that convergence of glassblowing and woodland creating, and object, the evocation of tree trunk, is analogical; between corporeal knowledge, that structure of

*experience*, and the objects expressed. There is a likeness of this account of expression to Levi Strauss' account of totemism. While totems, for Strauss, are an analogical expression of the internal structure of the mind, here we see that the objects of expression are an expression of the structure of experience – the body an expressive threshold of the convergence of embodied knowledges, possible in virtue of the person's polycorporeal history. The analogy, therefore, is an effect of convergence, rather than of a rigid set of relations, or a dogmatic homology. In pointing to this, we point to the corporeal capacity to reveal an unexpected facet of the matter worked upon, which, though an opening for the expression of the matter, has been conceived as the affect of maker's intention, innovation – a concept which ignores the dialogical dynamic of practice and privileges the acting maker.

While it has been argued that totems spur collective solidarity or serve a variety of other purposes, here, without venturing so far afield, we can at least investigate the simultaneous development of a way of communicating and making discursively intelligible such corporeally discoveries – a practice of naming.

After dinner, Michelle and I sat on a bench in the hot shop with a couple of Heinekens and discussed our discovery and where we might go with it. We were conscious of planning a 'project,' as studio critiques and final studio visits were part and parcel of the course. Michelle suggested blowing rondels (plates) from the material; I had an idea of a diorama, a practice which I favored, within which we could create a forest, complete with british soldiers and hornworts. 'Well, we could make the diorama walls with rondels of 'this' material,' Michelle said, gesturing across the hot shop towards the casting studio where the stump still stood. 'Wasp glass rondels,' I responded, 'I love it.' 'Why wasp glass?' she said. "Just because it looks like the inside of a wasp nest," I responded, remembering the wasp nest in the lilac tree behind my parent's garage, the painting of the wasp nest by my great-grandfather that hangs at my mother's front door. 'So, we'll wasp up the glass for the rondels.' 'Wasp glass,' she said. 'Wasp glass,' I said. We talked about how much we loved this new wasp glass and imagined all that we could wasp up and dreamed of the contents of the diorama – essentially a flora and fauna scene, including the trunks, a cast glass bee, pinecone chandelier, and some hot sculpted british soldiers and hornworts. We pondered its title and how to present ourselves, in light of the collaborative nature of the project. With more inspired laughing at the electrical-like catching on to each other's thoughts, we titled it "Flora and Fauna with Wasp Glass" by Flora & Fauna." (Field Notes, July 27, 2006)



**Flora & Fauna: Wasp Glass Diorama**

While we called it "wasp glass" based upon its visual similarity to that of a wasp nest, we did not shift into the production of wasp nests. Rather, naming accomplished a familiarity and tangibility with the material – it made the process intelligible. Here, we see the import of not only lateral equivalences, that is that gathering together of differing worlds of embodiment and familiarity in contributing towards revealing the unexpected, but also of the significance of naming. Naming, rather than presupposing thought, accomplishes it. Vocabulary developed around the wasp glass, to which we first referred as "stump glass", points to the fact that the language that houses the speaker is substantiated both with material and the situation in which the speaker and, or maker, finds herself.<sup>xiii</sup> This vocabulary expressed the new that issued forth from the convergence of embodied knowledges.

Just as we were able to create outside of "traditional" technique once situated, and in a sense, shifted through the gathering in of the woodland, we were able again shift within the new situation. When asked to give up the bench so that other students in the class, who had not blown before, could try, reluctantly we did. Even though the bench had allowed us to begin to blow glass, stepping away from the bench, once grounded in our engagement with the wasp glass, demanded that we create a different scenario in which to blow the wasp glass. What resulted was not only a plethora of new "techniques" which were informed by the wasp glass itself, as well as a diorama that exceeded the space of the box with which we had originally wanted to frame it. Rather than placing "a world" within a box, what had been created via the convergence of embodied knowledges created a world, which the viewer inhabited – it was called "archeological dig", a "petrified forest", bones, driftwood. In any case, the piece evoked places, perhaps because it expressed precisely the convergence of both actual materials and embodied knowledges wedded to specific places. The final "piece" communicated the metamorphosis of the glass and our glassblowing practice in virtue of these lateral shifts not only visually, but also olfactory: it smelled – the glass itself smelled of charred wood, one viewer

even putting his tongue to it to see if it had a taste. It was also rough and spindly, doling out glass splinters and cuts plentifully to Michelle and I both. The wasp glass forest was not of the clear, smooth and odorless glass world, but rather inhabited some place in between glass and wood.



**Wasp glass forest**

I do not purport, nor do I wish to, that this work is "Art". What I find value in is that this wasp glass assemblage, more specifically an analysis of its making, makes tangible an understanding of how the convergence of embodied histories as directional discovery can reveal yet known aspects of a given matter. Thus, we see the significance of those centripetal forces in expression, that drawing in of embodied histories from the periphery. It is not so much that the new or innovation is achieved, but rather that a person can corporeally articulate unexpected aspects of a material due to her situatedness and her ability, based on embodied histories – to engender a metabolic relation or breadth and depth, with that situatedness.

## **Conclusion**

This inquiry has undertaken to develop an embodied understanding of expression in the practice of glassblowing. Through considering the dynamics of expression, such as corporeal knowledges, both present and past, and the metabolism of situatedness, we have been able to discern modalities of expression, such as problem-solving, style, and metabolic metamorphoses. This understanding has been arrived at via *in situ* ethnographic research – the body, that living body which both inhabits and is inhabited by the material and affective world, is the seat of the convergence of embodied histories, from which we have been able to understand the drawing in of peripheral knowledges towards revealing an unexpected aspect of the matter underhand. Disembodied ethnographic inquiries into expression, which

are grounded in the ontological underpinnings of a knowing mind and a known world, conceal this depth and breadth of the experience of expression. Furthermore, through understanding expression as an affect of corporeal capacities, themselves situated and historical and salient to all modalities of practice, challenges the employment of the concept of expression to distinguish a work of "art" from a work of "craft".

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## Endnotes

- i "This sense of human awareness as immaterial is facilitated and encouraged by bodily disappearance. Our conscious interaction with the world is sustained via a sphere of anonymous visceral functions... Yet these processes are carried out unconsciously, wrapped in a depth disappearance. Because such processes recede from the phenomenal life-world, human consciousness may seem *causa sui*, intertwined with no material principle. And in addition to this withdrawal of the unconscious body, there is a self-effacement within the structure of consciousness. As I have discussed at length, my experiencing body is ecstatic, directed away from itself. That from which I perceived, my body is literally over-looked. It can thus seem as if the experienced world is arrayed before the gaze of a disembodied mind" (Leder 1990: 116); "The experience of abstract thought thus provides one of the more powerful derivations for the notion of the rational mind as incorporeal. In this activity, the body of the thinker, the body of the sign, the body of the referent, are all experientially effaced. This strongly encourages the characterization of thought as a disembodied activity engaged in by an immaterial soul" (Leder 1990: 125).
- ii I have conducted in situ ethnographic fieldwork at New York Glass, a public access glassblowing facility in New York City since 2003. I situated myself in the field through enrollment in a beginner's glassblowing class. Since this time, I have taken five ten to twelve week glassblowing courses, acted as a teaching assistant for eight beginner-level glassblowing courses, apprenticed in a professional artist's studio for three months of building and two months of glassblowing, as well as enrolled in the country's leading glassblowing vocational school for a three-week intensive glassblowing course. During this time, I have additionally blown glass outside of scheduled courses. My field work data consists of detailing how I am learning the practice, as well as presentation and reception of work, the field of interaction, and modes of

dialogue. In situ in the material arts, by disposing the researcher to acquire the disposition and practical knowledge of an art, allows the research to explicate the tenets of tacit knowledge, its modalities across the spectrum of proficiency, as well as the varying levels of significance in creativity.

- iii The phenomenal body as groundwork is not a realm of imploded subjectivity. The phenomenal body is both a body in itself and a body in the world. Lived experience, seated in the phenomenal body, is always intersubjective, and moreover interobjective. The phenomenal body is intentional, is stretching towards, is both in itself and in that which is "external" to it. It is itself consciousness and the faculty of understanding: "Consciousness is being-towards-the-thing through the intermediary of the body. A movement is learned when the body has understood it, that is, when it has incorporated it into its 'world', and to move one's body is to aim at things through it; it is to allow oneself to respond to their call, which is made upon it independently of any representation" (Merleau-Ponty 1962: 139). Perhaps most importantly, participation, as immersion and consequently as incorporation of the dispositions of the art oneself, was, and continues to be, epistemologically key to accessing and theorizing the tacit understandings of an art. Tacit understanding is not an intellectual synthesis of successive acts by a discerning consciousness. Rather, it is a bodily intentionality: "practical, non-thetic intentionality, which has nothing in common with a cogitatio (or a noesis) consciously orientated towards a cogitatum (a noema), is rooted in a posture, a way of bearing the body (a hexis), a durable way of being of the durably modified body which is engendered and perpetuated, while constantly changing (within limits), in a twofold relationship, structured and structuring, to the environment" (Bourdieu 2000: 143-144). Tacit understanding must be gained through practice: "For the things which we have to learn before we can do them we learn by doing: men become builders by building houses, and harpists by playing the harp" (Aristotle, *Nicomachean Ethics*: 1103a30-1103b). Through repeated action, a hexis, a characteristic, or disposition, is developed and in this sense, we learn bodily. In this framework, the ethnographer seeks to understand the corporeal processes through which the practitioners come to live according to the norms, values, mores, ethics, of a given lifeworld, by herself incorporating those dispositions.
- iv For an extended discussion of the logic of apprenticeship, please see, O'Connor (2005)
- v It is in this sense, that Socrates argued in Plato's *Meno* that to see a problem is already to know the answer: "[Socrates] says that to search for the solution of a problem is an absurdity; for either you know what you are looking for, and then there is no problem; or you do not know what you are looking for, and then you cannot expect to find anything" (Polanyi 1967: 22). For Socrates, it is possible to already know the answers to the problems we perceive because our souls have lived before and carry the knowledge from those past lives into the present life – what we refer to as learning, then, is largely a process of recollection (*Meno*: 80d – 81e). While glassblowers' enduring souls perhaps are not that which allow them to see a problem, the enduring tradition of the art itself, which they have corporeally incorporated, surely is.
- vi See O'Connor (2005)

- vii Livio Serena has been blowing glass for fifty years on Murano. The glass school brought Serena to the United States for his first time that summer to teach Venetian techniques. Serena had never seen women blow glass before and he was adamant about the fact that he did not consider himself an artist.
- viii Jocelyne Prince earned her B.F.A. from the Nova Scotia College of Art and Design and her M.F.A. from the Rhode Island School of Design. She currently teaches at the Rhode Island School of Design and heads the Glass Department. Her studio practice pushes the boundaries of glass, working through a poetic dialog with glass physics, resulting in such works as sound waves recorded in liquid tin on glass.
- ix "Similarly, when something at hand is missing whose everyday presence was so much a matter of course that we never even paid attention to it, this constitutes a breach in the context of references discovered in our circumspection. Circumspection comes up with emptiness and now sees for the first time what the missing thing was at hand for and at hand with. Again, the surrounding world makes itself known. What appears in this way is not itself one thing at hand among others and certainly not something objectively present which lies at the basis of the useful thing at hand. It is 'there' before anyone has observed or ascertained it. It is itself inaccessible to circumspection insofar as circumspection concentrates on beings, but it is always already disclosed for that circumspection" (Heidegger 1996: 70).
- x "We understand the region as that to which the context of useful things at hand possibly belongs, a context which can be encountered as something directional, that is, containing places and as de-distanced" (Heidegger 1996: 103).
- xi "The directional discovery of something like a region belongs to the making room of Da-Sein. With this expression we mean initially the whereto of the possible belonging somewhere of useful things at hand in the surrounding world. Whenever one comes across useful things, handles them, moves them around, or out of the way, a region has already been discovered. Being-in-the-world that takes care of things is directed, directing itself. Belonging-somewhere has an essential relation to relevance. It is always factually determined in terms of the context of relevance of the useful things taken care of. The relevant relations are intelligible only in the horizon of a disclosed world. Their horizontal nature also first makes possible the specific horizon of the whereto of regional belonging. The self-directive discovering of a region is grounded in an ecstatically retentive awaiting of the possible hither and wither. As a directed awaiting of region, making room is equiprimordially a bringing-near (or de-distancing) of things at hand and objectively present" (Heidegger 1996: 336-337).
- xii "This capacity of a thing to reveal itself in unexpected ways in the future I attribute to the fact that the thing observed is an aspect of reality, possessing a significance that is not exhausted by our conception of any single aspect of it" (Polanyi 1967: 32).
- xiii On this basis, we can understand "...why thought tends towards expression as towards its completion, why the most familiar thing appears indeterminate as long as we have not recalled its name, why the thinking subject himself is in a kind of ignorance of his thoughts so long as he has not formulated them for himself, or even spoken or written them, as is shown by the example of so

many writers who begin a book without knowing exactly what they are going to put into it" (Merleau-Ponty 1963: 177).

## References

- Aristotle (1999) *Nicomachean Ethics*. Translated by Martin Ostwald. New Jersey: Prentice Hall.
- Bachelard, Gaston (1971) *On Poetic Imagination and Reverie*. Woodstock, Connecticut: Spring Publications.
- Bourdieu, Pierre (1990) *The Logic of Practice*. Translated by Richard Nice. Cambridge, England: Polity Press.
- (2000) *Pascalian Meditations*. Translated by Richard Nice. Stanford, California: Stanford University Press.
- Byrd, Joan Falconer (2001) "Interview with Harvey Littleton." *Smithsonian Archives of American Art*. Spruce Pine, North Carolina, 15 March 2001.
- Heidegger, Martin (1996) *Being and Time*. Translated by Joan Stambaugh. New York: State University of New York.
- Leder, Drew (1990) *The Absent Body*. Chicago: University of Chicago.
- Levi-Strauss, Claude (1963) *Totemism*. Boston: Beacon Press.
- Merleau-Ponty, Maurice (1962) *The Phenomenology of Perception*. London: Routledge.
- O'Connor, Erin (2005) "Embodied Knowledge: Meaning and the Struggle Towards Proficiency in Glassblowing." *Ethnography* 6(2): 183-204.
- O'Connor, Erin (2006) "Glassblowing Tools: Extending the Body Towards Practical Knowledge and Informing a Social World." *Qualitative Sociology* 29 (2): 177-193.
- Plato (1981) "Meno" in *Five Dialogues*. Translated by G.M.A. Grube. Indianapolis, Cambridge: Hackett Publishing Company.
- Polanyi, Michael (1962) *Personal Knowledge: Towards a Post-Critical Philosophy*. Chicago: University of Chicago Press.
- (1967) *The Tacit Dimension*. Garden City & New York: Anchor Books.

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