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Anthropology of Making**

Michele Avis Feder-Nadoff

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# **Bodies of Knowledge: Towards an Anthropology of Making**

**Michele Avis Feder-Nadoff**

## **Abstract**

In recent years, making has become popular, (re)seen as a hopeful, even ecological and political enterprise, whose processes enact natural correspondences and flows between peoples, places, materials and things (Ingold, 2013; Marchand, 2010; Gell, 1998). Yet, these assemblages also rupture, generating friction, resistance, transformation or irrevocable schism (Turner, 1969; Conquergood and Hamera, J., 2004). And then, materials also shift; like people and places they are always transforming. People and tools also break down, become injured or age. Making assemblages (and their knowledge- and identity-making processes) may also challenge by provoking scholarly onto-epistemic frameworks for carrying out “scientific” research. A focus on artisan production can open up an interdisciplinary academic space where the empirical precision of the scientist may be brought into dialogue with the speculative imagination of makers. The coppersmiths “learning by doing,” does not conclude, ending in a finished object but rather begins anew in their proceeding creation. This artisanal methodology, inherent to making, offers new ways to think about learning and cognitive processes. This paper begins this discussion.



My research as an artist and anthropologist joins both fields to study skilled practice and (artisan) agency— what has become known— as making. It is here in-between— in the middle—, borrowing from Giles Deleuze and Felix Guattari (1987), where both streams of action “speed up,” overrunning their banks and intersecting borders.

Gleaned from a lifetime of artistic practice and ongoing long-term apprenticeship with the mestizo<sup>1</sup> coppersmiths of Santa Clara del Cobre in Michoacán, Mexico, I have developed an anthropology of making shared in part in this brief essay.

In recent years, making has become popular, (re)seen as a hopeful, even ecological and political enterprise, whose processes enact natural correspondences and flows between peoples, places, materials and things (Ingold, 2013; Marchand, 2010; Gell, 1998). Yet, these assemblages also rupture, generating friction, resistance, transformation or irrevocable schism (Turner, 1969; Conquergood and Hamera, J., 2004). And then, materials also shift; like people and places they are always transforming. People and tools also break down<sup>2</sup>, become injured or age.

Making assemblages (and their knowledge- and identity-making processes) may also challenge by provoking scholarly onto-epistemic frameworks for carrying out “scientific” research. A focus on artisan production can open up an interdisciplinary academic space where the empirical precision of the scientist may be brought into dialogue with the speculative imagination of makers. The coppersmiths “learning by doing,” does not conclude, ending in a finished object but rather begins anew in their proceeding creation. This artisanal methodology, inherent to making, offers new ways to think about learning and cognitive processes. This paper begins this discussion.

### **Peripheries, centers and fault-lines**

Looking at Santa Clara from inside the center of practice, rather than as a peripheral site of agency and knowledge allows us to examine hierarchies related to craft. These narrative tropes are employed for nationalist identity, as much as for marketing heritage, tourism and craft sales and defining values.<sup>3</sup> For example, although most craft production in the Michoacán region where Santa Clara is located, preceded the Spanish conquest, its existence is often attributed to the bishop don Vasco de Quiroga, and Moore’s utopian vision brought to “New” Spain.<sup>4</sup> The back side of this is an undermining message that more sophisticated and “educated” outsiders intervened to develop these artisanal trades and the indigenous artisans who lived here before the conquest. This assertion is also based upon the aesthetic values and production goals of the Europeans versus the indigenous P’urhépecha people and their empire who dominated this area prior to Spanish incursion.

On the other hand, the reverse is also problematic. Emphasizing craft value and meaning only via pre-hispanic vestiges or roots, rather than living hybridity, freezes artisan agency within essentialist conceptions of aura and authenticity. This obfuscates artisan agency found precisely in response to contingency, friction and rupture. In other words the coppersmith’s ability to change, adapt or resist.



To study these confluences and fault-lines, my research (its analysis and interpretation) integrates performative (making) practices as reflexive techniques that deepen anthropological methodologies and philosophical inquiry.<sup>5</sup> This paper addresses these intersecting practices by reflecting first, upon my long-term mentor-apprenticeship to Maestro Jesús Pérez Ornelas (1926-2014) in his family forge; then concludes by sharing my daily drawing practice, a parallel ethnography (of making). These studies converge complementary ways of speculative knowing by “following materials, learning movements, and drawing lines,” (Ingold, 2016, pp. 2). These three performances constitute the “graphic anthropology” proposed by Ingold to revive our discipline by bringing material culture back to life (Ibid).

### **Making and Material Culture**

Contemporary interest in making and skilled practice has logically evolved following the sensorial, material, performative and affective turns of the last three decades.<sup>6</sup> This resurgence has also stimulated long-needed, revised approaches to studying material culture, once considered essential to anthropological research, as originally modeled by Franz Boas.<sup>7</sup> Human activity and performance rely upon the vitality of materials and the things made with, and of them. Today, to think about the agency and social life of things means things are more than containers, limited by physical edges; we might re-think them “as creative processes and as products of [their] entanglements” (Bell and Geismar, 2009).<sup>8</sup> And as Ingold and Hallam (2014), amongst others have argued, things also grow and even leak.

This opening-up to the processual, performative and material was significantly impacted by the interdisciplinary work of skilled anthropologist practitioners, keenly prepared to participate and observe with(in) their research-sites.<sup>9</sup> These include for example, Steven Feld, a musician who conducted sensory ethnography among the Kaluli people of Bosavi in the rain forests of Papua New Guinea. In *Sound and Sentiment: Birds, Weeping, Poetics, and Song in Kaluli Expression* (1982), Feld introduced an anthropology of sound. This cultural aural study brought together affect, emotions, and musicology that forever changed the field.<sup>10</sup>

*The Anthropology of Experience*, edited in 1986 by V. W. Turner and E. M. Bruner also emphasized the importance of embodied, sensorial and emotionally engaged ethnographic practice. This was followed in 1989 by M. W. Coy’s edited publication on *Apprenticeship: From Theory to Method*, decades before its current popularity and *Creativity/Anthropology* edited by Renato Rosaldo, Smadar Lavie and Kirin Narayan in 1993. The former edition stressed the value of apprenticeship in fieldwork and proposed various methodologies for this work. The latter focused on creativity and play, as not only a subject of study, but as also an essential element of ethnographic practice, interpretation and analysis.

As a result of these studies, in addition to the senses and affect, imagination and creative “making” processes, previously conceived as exclusive to the domain of artists, became included, not only experimentally, in the repertoire of anthropological



method, interpretation and analysis.<sup>11</sup> This also shifted focus from the symbolic nature of the body and its representation to action and performance,<sup>12</sup> generating related interest in bodily cognition, or embodied knowledge. In parallel to these perspectival shifts, studies of material culture have also changed. A. Gell's influential book, *Art and Agency* published posthumously in 1998, was influential in animating the object. Gell's theories of the performative agency of things and the enchantment of (their) techniques has also been currently re-taken up.<sup>13</sup>

In a time of intense virtual and global relationship, the general public as well as scholars have been drawn to the tangible sensorium provided by material things made by people and the (often slower, in the sense of time-demanding) practices of making them. This re-shifting also provides space for new analysis of things and their makers. For these reasons, today it makes sense to study material culture via making.<sup>14</sup>

From this perspective, makers and their bodies of knowledge become more visible.<sup>15</sup>

### **The politics of making**

Making (as practice, research methodology and as focus of study) is also political as it is an attending to the politics of knowledge. To study with makers and to study making implicitly if not explicitly addresses the “epistemological ethnocentrism” (Reagan 2017) and “epistemic colonialism” (Viveiros de Castro, Holbraad and Pedersen 2014) of much (Western-based or influenced) scholarship (and governance). As Gatt (2018: 9) explains: “the separation of ontology from epistemology is itself a function of the intellectualist assumptions of what ‘knowledge’ is, with its foundations in ancient conceptions of mind-body, body-world dichotomies” (Ibid). These bifurcations also inform or have roots in the politics and policies of work and labor, race and ethnicity, class, status and power, feeding into the social and cultural contingencies of the coppersmiths of Santa Clara.

All these factors played a persistent role in my study with Maestro Jesus and formed the context and impetus for my apprenticeship whose objectives were philosophical and ontological, as well as epistemological and political; by learning how “to make” things in Santa Clara I learn how “to be” an artisan in a “world-of-becoming” that is not necessarily privileged, fair or easy. This does not mean that the coppersmith has no agency. It is also why the term “body of knowledge” is so charged.

### **Different Ways of Knowing**

When we use the term “body of knowledge” most often we are talking about disembodied knowledge—codified and abstracted, organized and bound into books (to be read and consumed). But bodies of knowledge are not bound pages addressing a subject from one end to another, lanced between two rigid covers. Bodies (of knowledge) are active and always emergent and changing (see Downey, 2007). This is why to study making in Santa Clara the immersive experiences of apprenticeship are essential.



### **Apprenticeship in the Family Forge of El Charon**

Metal-smithing is an extremely multi-modal, even acrobatic-like craft, demanding constant agility and responsive improvisation. This intense apprentice participation in the family forge literally keeps me on my toes. My ability to participate through apprenticeship, using the body as a laboratory, is supported by my kinesthetic experience and training as an artist. As a woman, experienced in sculpture and performance, to adopt new gestures, movements, muscles and attitudes, also permits entry into a primarily male-gendered space, to form camaraderie, and examine the doing and learning-the-doing from-inside-out. This trajectory also makes possible more precise analysis of the epistemological and ontological idiosyncrasies of craft making in Santa Clara, by identifying its aesthetics critically and contextually. As an artist and maker, I am able to draw comparisons and recognize contrasts and differences.

### **Following materials**

Santa Clara artisans name their “traditional” work— *cobre martillado*— literally meaning “hammered copper” and specifically forged from a solid copper-ingot, the *plancha*. The annual copper fair and national competition highlights work done within these parameters. This (term) emphasizes the pre-industrial labor intensive methods that begin with the smelting of the ingot in an earthen depression in the ground, a stage that links the contemporary period to the colonial and to the pre-columbian.<sup>16</sup> This is followed by its forging, into the primary pancake-like *tejo* shape from which all other forms will emerge. Nowadays the copper *materia prima* is mostly recycled electrical wire and machine parts. In the prehispanic and colonial periods copper came from mines in the area.<sup>17</sup> Maestro Pérez explained that in the past the artisans also recycled copper artifacts, such as copper axes sold to the artisans by traveling tradesmen from Nayarit or Guanajuato, or even recovered from Santa Clara’s own streets when stones of a road were replaced by pavement.<sup>18</sup> The few living Santa Clara artisans still dedicated to forging the large iconic copper cauldrons introduced during the Spanish conquest today are the main source for ingots. However when this method was more prevalent most studios smelted their own ingots. Over the course of more than two decades, this aspect of the work, although still considered “traditional” has for the most part, now been replaced by the town’s industrial laminators who produce and sell rolled copper cut into discs of various thicknesses and circumferences.<sup>19</sup> The shops of these factories also produce and sell these copper discs already “deepened” for the creative artisan to further work, hammering to realize their own original creations or to fill a patron’s orders.

My research, in part, focused on alternately working on laminated copper versus ingot copper to learn the differences.<sup>20</sup> I also wanted to understand why this was a technique held on to despite its extra hours of work. What advantages might it have and what might it mean to the artisans. For me, since the very beginning the most tedious task was cleaning the wedge of raw smelted copper used to forge out the *tejo*, the pancake-like hand-forged (versus industrially rolled) copper. I worked in partnership with my artisan teachers. I never seemed to see what they saw in the copper ingot. Their eyes perceived



the flaws that would grow bigger and later disrupt the smithing process. The mottled surface to me was a maze. To my teachers it was like tea leaves that they could read defining dangers.

### **Following movements**

The ingot began as a rough copper chunk, like a piece of pie cut out of the larger pie-shaped ingot matching the depression made in the earthen mold where the copper was smelted. This odd shaped copper ingot was so difficult to steady with a blade to cut while also yielding a heavy hammer. I actually had to steady four things at once: the ingot, the tongs used to grip it, the steel chisel that must be hit precisely skim-chiseling cuts off the ingot's gritty surface; and the hammer itself. All of this, while keeping track of what pit-marks called out future danger and thus their removal. The ingot was rested between two slabs of hardened steel aligned at a 90 degree angle like a partially open book. These rested on the ground making it extra awkward, as one had to position one's body low down, holding all ones limbs and torso, from toes to head, steady, balanced and centered with gravity moving outwards into one's blows.

All of these stages are accomplished by repeatedly and alternately heating up the ingot as it cooled down until it is red-hot and annealed, making sure to not underheat or overheat. I have to judge the temperature by the color of the fire and the metal while also pumping the double bellows used to keep the fire pit going. Sometimes my teachers would readjust the wood where I had buried the ingot. Sometimes they teased me that that now I had accidentally smelted the ingot which was now just melted burnt copper. This is not only laborious work, it is also tricky, requiring patience and adept eyes. This chiseling to clean the surface was always my biggest challenge. Although all aspects were challenging and still are this was my most tedious battle with movement and material. I often assisted my teachers, holding the ingot with a long handled flat duck-nose pliers (themselves hand-forged) to keep it steady in place while they hammered and chiseled away the imperfections. At times when they feel I am not helping sufficiently, but actually making it worse, they will grab the tongs to proceed on their own.

Coppersmithing is like juggling, yet things were not supposed to fly into the air, they are to be held in place by pressure targeted and released efficiently and expertly.

### **Gajos and gadroons.**

Beginning with my first visit to Santa Clara in 1997, I began to focus on creating the gourd or pumpkin shaped pieces. My goal was to master as much as possible what is called the *gajo*. These are evenly repeated, convex sections that decorate the vessel form — like the sections of an orange, squash or pumpkin. This is a common design element, a form that is also created and subsequently further developed into pleated accordion shaped ridges. Once you can make the rounded forms you can graduate to trying to make the pleated accordion-like or what are called the *costillas*, rib like forms. In art historical terms these are called “gadroons.”<sup>21</sup>



I chose this style, as significantly, in a sort-of clandestine manner my sculptural interests could be adapted to conform with a type of vessel common and acceptable to the community production. This shape could be named a *frutero*, fruit-bowl by other artisans and family members.

By setting myself the task of the *gajo* I was forced to learn related techniques that would incorporate many aspects of the metal smithing processes all in one piece. This included learning to work on many different types of stakes and know which ones to chose. For the master coppersmith they forge their own. To design a vessel is to design its tools but that is a large aspect of the work which I did not accomplish. Rather I continue to take advantage of my teachers' large stock of stakes, anvils and chisels in the studio, although they increasingly pressure me to learn to make my own.

Copper vessels are like bodies without bones or organs. Like clay, copper constitutes its own armature and membrane, stretched and shaped from inside and outside.

### **Copper-smithing Performance**

Copper-smithing in Santa Clara is also exceptionally performative. Part of my training in the forge studio was also how to become a performing subject, another member of this collaborative at times discordant unit, and nowadays in struggle with my master teacher, their father and leader, *jefe* no longer alive.<sup>22</sup> When visitors arrived they would often treat me as another object or thing to photograph and observe. Cameras came in very close to my face. Napoleon the youngest son of my teacher, now almost middle-aged at 41, would stand at my side watching me work. When I showed discomfort, he told me that part of my role as an artisan was to learn to be watched.

Turner's performance concepts, such as "conflict," "crisis,"<sup>23</sup> "social drama,"<sup>24</sup> "liminality,"<sup>25</sup> and the "between and betwixt"<sup>26</sup> usually applied to more directly analogous studies of the theater (and theater-like) and ritual (and ritual-like) happenings and events— take on new meaning in Santa Clara.<sup>27</sup> The copper artisan's power of enchantment, their ability to transform labor into artfulness is evident in the constellating activities of forge, village festivals, national fairs and craft competitions. Copper-smithing is seductive, dramatic and alchemical.

Like rites of passage, the *materia prima*, copper metal passes through three phases of becoming; smelting separates the copper ore from solid to liquid state; chemically unleashed it is left in-between, in a liminal threshold state until, when work-hardened, it coalesces, becomes resolved, the metal chemistry stabilized and reintegrated.

These magical qualities of copper in conjunction with the primal elements involved in smithing—fire, earth and water—lend a mythic aura and agency to the smith. This power is carried forth and at times abducted into the tropes constructed by competing and co-and contra-performing sense-makers. This is to say that, many other actors including government officials, designers, artists, clients, gallery-owners, other artisans and even the Catholic church use this power as tropes for their own purposes. These





insiders and outsiders also compete or collaborate to define its meaning, value and rules.

As much as I become part of the family forge and household and approach apprenticeship as a collaborative mutually beneficial research practice, I too, play a role in this entangled crafted “heterotopia.”<sup>28</sup>

### **Collaboration and Apprenticeship as Emergent practices<sup>29</sup>**

This is also to say, that knowledge is co-produced, just as skill can be practiced but not acquired. Both are only emergent in-relation-to. The intelligence, skill, perception and “the intentionality that powers the practice” of my teachers can “only be found in the action itself, in the merging of movement and sensory awareness [...] in *pro*-duction” rather than *ab*-duction (Ingold 2016: 6).<sup>30</sup> In the forge, learning is a collective intersubjective endeavor. And although culture is said to emerge in dialogical exchange, there exists internal (not only external) hierarchies and constraints to its access.<sup>31</sup> Maestro Jesus and his family control what and how they want me to learn (Herzfeld 2004).

In apprenticeship, I must collaborate with attention to these different ways of knowing. This requires learning by un-knowing and un-learning and is facilitated by making mistakes and failing.<sup>32</sup>

### **Mistakes that tell stories**

What and how I learn and perform in Maestro Jesus’s studio is not the same as in my own. I am not free. Creation (in making) has parameters, resistances, tensions and constraints. In my studio back in Chicago, I forged simple vessels, uneven, organic shapes, leaving bumps and textures surfaces, unpolished with a permissiveness and a degree of “un-finish” that would go against the studio of Maestro Pérez. In his studio, my first anthropomorphic vessels in his style, with three feet and three heads, pronounced my failure to imitate the style and techniques of his work. My errors articulated in contradiction his studio’s aesthetics of smoothness and symmetry. The surface play of hammered texture, reflective light and shadows of my failed pieces might have pleased Giacometti but not Maestro Jesus who said these pieces were *feas*, ugly and “should be thrown into the street.” Indeed, mistakes are unkind. But they indicate what needs to be unlearned. At the same time this indicates what I needed to learn.

Being with people in the forge requires being open to the unknown as Amanda Ravetz (2017–18) explains but it also implies being open to pain and ruptures.

### **Pain and ruptures of apprenticeship training**

This is not just intersubjective or conflictual pain and ruptures but also includes the actual pain of physical retraining in apprenticeship to learn the movements specific to



the artisanal practice. Despite being cliché, there really is no gain without pain. Muscles grow by being torn and limberness comes from stretching. There is no such thing as constant and easy flow. Nor is tacit movement or know-how sufficient terms for the athletic and biological processes that take place in intensely physical craft. Nor does this mean it is not also extremely mental. As maestro Jesus would constantly stress pointing his forefinger to his head when I had failed in an aspect of my crafting.

### **The dance of agency**

This is especially exemplified in the key criticism that maestro Jesus simply had for me. It underlines and reveals the knowledge of the artisan who “knows that” by “knowing how.”

As many scientific studies claim, successful and efficient copper-smithing requires entire body movement, running from toes to fingertips and embracing all heightened senses (G. Ivanova 2005). Maestro Pérez was forever criticizing me for keeping my body tense, especially when he watched me beginning the first forging steps that require you to stretch out the copper *tejo* disc, hammering in a spiraling spinning movement from the center outwards. In this position I had to juggle holding the copper *tejo* with my left arm as I struck it with my right arm spinning the round disc with each blow. On top of all the other challenges I am also left-handed, making mirroring movements extra complicated. The *maestro* would imitate my awkward rigid movement and posture, his left arm bending at a stiff angle. His own movements were fluid and agile, they rippled through his body gaining momentum as they swept through like a wave. Embracing the weight and gravity of the hammer, he did not resist it or struggle; but instead he incorporated the tool into his own body’s propelling force. This dance of agency is Ingold’s (2013: 99-102) “dance of life.”



*Figure 1: “The dance of agency”. Maestro Jesús Pérez Ornelas (center) forging the round tejo, copper ingot with his sons, José Sagrario Pérez Pamatz (left) and Napoleón Pérez Pamatz in the family forge, Santa Clara del Cobre, 2011, photograph M. Feder-Nadoff. See Malafouris (2008: 34) and Ingold (2013: 99-102).*



### **The Mole Theory**

However, this ability to move points out another central factor in this discussion: Haptic and somatic movement as described above is blind. One does not and cannot look at one's arm<sup>34</sup> striking nor the copper underneath the hammer stroke. One feels these actions and performances.<sup>35</sup>

When the coppersmith master asks me what makes me unhappy about my piece, they use the language of “duele,” pain. What they mean is “what bothers you”? This implies that the sense of mistake or failure, or the impulse to move forwards, to correct or perfect further, comes from an inner senses of perception, feelings that rely less on the visual, than upon a complex of orchestrated senses of bodily placement and awareness of space and the objects in them. This ability combines focal and periphery vision and is related to G. Downey's (2007) description of the sideways glance of the capoeira martial artists who also move in dancelike yet forceful ways. This ecology of perception, to follow J. Gibson, (1979) is however not so much about reading surfaces as he emphasizes; but more about perceiving space and densities, emptiness and fullness, tones and light, vibrations and movements of objects and the self within these contours and openings. This blind-visibility, I call “the mole-theory” (Feder-Nadoff, 2017: 94; 211-212, n 239; 230, figure 4.2; 318; 320, n. 390; 437) makes playful reference to the tunneling movements of the blind mole. Their very movement is their direction. They are guided through their earthen paths, not optically, but haptically and synesthetically. Scientific studies such as Sarlegna F.R., Sainburg R.L. (2009) demonstrate that in human awareness of limb location in movement there is a strong combination of both modalities of proprioception and vision.<sup>36</sup> It appears either of these modality can step in to strengthen the other when there is a deficiency. According to Sarlegna F.R., Sainburg R.L. (2009) vision is seen to provide a spacial mapping for the directed movement and proprioception transforms this mapping in neural commands to the limbs of the body. However what happens to the coppersmith when their actions depend and generate sensations and impressions of heat, sound, and texture? Is the visual always necessary? It certainly does not operate alone.

### **Drawing lines**

Cognition does not reside in an isolated brain, nor is it disembodied. Rather, the brain circulates inside and outside our bodies through its neurological paths, just as our muscular hearts pump oxygenated blood.

In this way we might also understand that movement does not end at our fingertips. Rather it extends, as my master's reach with the hammer draws his outward path in(to) the universe. As the lunar tide, this dendritic path is pulled as much as cast. In this sense, copper-smithing is a form of “drawing [...] in the widest sense [...] a linear movement that leaves an impression or trace of one kind or another” (Ingold, 2007: 2).

Ingold (2007: xv) argues that drawing is as an “inscriptive practice” with the potential to challenge “rigid dichotomies between image and text [...] a method and technique [...] to reconnect observation and description with the movements of improvisatory prac-



tice.” This is what I have also discovered through a daily drawing practice (initiated in 2008) sustained throughout my doctoral study (2012-2017).

Initiated in 2008, the drawing series combines image and text through the mnemonic repetition (and variations of) a calligraphic gesture essential to both the Hebrew and Arabic alphabets. The impregnated passages record unraveling lines of wet and dry paint and ink whose resistance, overlay, superimposition and absorption is trailed by the brush like the incremental and excremental movement of the snail.

The painted-drawings fill various-sized notebooks and single sheets, often worked from both sides like textiles. The handmade or industrial papers of various weights, thicknesses and degrees of transparency are also collaged together to form large suspended works or folded into manuscript codices. In addition, the painted drawings are animated in video-projections, or woven and embroidered with fibers or threads. These intimate embodied inscriptions are also carried into the public realm through frescos painted onto walls in architectural scale. Traditionally carried out by itinerant painters and employed in social practice, in these site-specific-works, the gestures and movements of my drawing are choreographed into durational-performative-installations.

In these drawings and frescos, as in my copper vessels, labor and pentimento accrete, serving as archives tracing movement like the mole’s tunneling path. Growing row upon row, the marks begin lower right, moving left, then repeat, building upwards. Rather than precise design, these improvised layers and regressions metabolize rhizomatically — obliterating, revealing or concealing text. These palimpsests are scores registering (in W. Benjamin’s words) “the entire musical activity of the intelligible body”: pressure and balance, tone and pitch, key and movement, notes and rests, density and light.

## Drawing Image and Text

[See HTML version for accompanying video content](#)

Throughout my doctoral study I maintained two types of notebooks, worked on, side by side. One was a classical anthropological field-book for notes, reflections and citing of important readings.<sup>37</sup> The other was for my drawings (described above). The longer this went on, the closer these activities grew together and overlapped. Images and texts became mixed, the gestures and impulses that emitted them became more intertwined. Finally, post-doctorate, both inscriptions take place in one notebook. [See video].

Ingold in his proposal for a “Graphic Anthropology” explains that “the lines of drawing weave the very text and texture of anthropological work.” I would add, that writing and copper-smithing are like drawing. Each combine “movements of making, observing and describing” culled from long term and short term memory. These include voluntary and involuntary memories that are biological, as well as historical and cultural.

In all these activities, in the words of Benjamin (2007:214), the “materials of memory



no longer appear singly, as images, but tell us about a whole, amorously and formlessly, indefinitely and weightily, in the same way as the weight of his net tells a fisherman about his catch.” The artisan’s task, as the scholar and artist are to embrace and master “the whole enormous effort to raise this catch” (Ibid.)

## Conclusion

This returns us to the entry point of this essay; the “middle” of the stream between anthropology and art can be exciting but also dangerous. In these currents precipitous action can flood fields and destroy crops. The scholar, artist, as the artisan must be critical, alert, sensitive and responsible; if not feeling unduly buoyed by freedom and possibility, may be submerged and swept away. The value of the distinction of a field is clarity; but the blurring of distinctions through interdisciplinary perspectives still obligates us to bring clarity to the fields’ contents and their aspirations.

## Notes

[1] In Mexico, to be “mestizo” (although most of Mexico is of mixed race) is often associated with rural communities, “campesinos” peasant farmers (which many artisans also are), poverty and even backwardness. See Feder-Nadoff 2017: 245, n. 272; 357, n. 509; 316-317; 244, n. 270; 2017: 142; 316, n. 382. See also, See also López-Beltrán, Carlos, & Deister, Vivette García (2013). In Mexico, the Spanish word mestizo refers to a person of mixed race of indigenous, Spanish or African origins. However that said, the term mestizo which is related to the concept of mestizaje, mixed race, is a complicated, cloudy and ambiguous term that has popular common use meanings as well as historical ones. These meanings have changed over time and are used differently in different contexts. In addition biological anthropologists and other scientific researcher define these terms distinctly in the search for evolutionary and racial precision. In Mexico at the time of the revolution this concept was meant to refer to the “cosmic race” as propagated by José Vasconcelos Calderón (1882 – 1959), the secretary of education who also promoted the muralists and the anthropologist Manuel Gamio (a student of Franz Boas) who was the leader of the indigenismo movement. This concept was to unify the the nation and to solve two conflicted visions of a modern nation on one hand and on the other, people of an ancient destiny, with ancestral force and historical agency (See Vaughn, 2006). This latter concept, mythical and romantic, has impacted crafts and craftspeople in Mexico in concrete ways, framing the definitions or markings for example, of what is a “true” authentic and indigenous style. This reciprocally impacts the artisans’ aesthetic and technical decisions and the program design for tourism and product marketing. Significantly for the artisans in Santa Clara, they are in many senses not white enough (i.e. Spanish) nor indigenous enough. The latter often defined as the community does not speak the indigenous Purhépecha language or wear traditional non-westernized clothing. Yet these signs no longer hold true. In the words of many artisans, for the government they are what still often considered pejoratively: “indios,” indians, do not count for much politically and have no power. So although the great nation of Mexico was intended to have racial justice it does not. The artisans of Santa Clara, having not been considered “pure” enough racially to merit the “status” of indigeniety have in the past not merited the same academic attention. This dynamic has been shifting over the last two decades as hybridity and multiculturalism is becoming part of



the academic viewpoint. But there exists a political impact of race upon research and national agency.

[2] See also Marchand (2010: XII).

[3] See Feder-Nadoff 2017, pp 357-402; Azuela, 2013; Wood, 2008; Vaughn, 2006.

[4] In contemporary period (late 60's early 70's) artists Anna Pellicer and James Metcalf came to Santa Clara and eventually settled there founding a school of crafts. This history resonates in their story where they claimed responsibility for Santa Clara's development modeling their discourse after these earlier tropes. The "redemption" and revival of Santa Clara that they claim did not come about without friction and eventually a revolt by the community. See Feder-Nadoff 2017:176-178, 217, 253-257, 298, 306; Holland 2007.

[5] See V. Lembo, 2016, on embroidering, drawing, moving threads with colleagues and (al-ternative) reflexive ethnographic processes.

[6] This shift in perspectives can be seen as part of anthropology's ongoing decolonizing self-critique and the intellectual crisis initiated most intensely in the 80's and its subsequent reflexive turn. As part of this phenomena, increasingly the (study of) the senses, emotions and embodiment became part of this discourse, evidenced also in experimental forms of ethnographic writing, analysis and methodology. Theorizing about anthropology reflexively has brought to the fore the body as an active member, present in ethnography from all view-points, most especially, of the researcher and the persons under-study. This has also brought with it all the problematics of personhood; the researcher can no longer be an invisible body, an omnipresent owner of knowledge as objective truth. In this way, attitudes towards and the-ORIZATION of the varieties of knowledge expressed in daily and ritual practice have also shift-ed. Building on Bourdieu and Mauss among others, in the 1983, Michael Jackson published "Knowledge of the Body" reinforcing bodily participation as a methodology of studying person and place. By carrying out and joining in daily activities, such as lighting his own fire to cook his food, Jackson learned how the mundane connected to ritual. Finally, this paper does not include the certainly relevant and worthy contributions in the field of archeology in response to these turns.

[7] This is especially evident in Primitive Art, Boas.

[8] J. Bell and H. Geismar, 2009 proposed the term "materialization" rather than material culture to stress the "dynamic process by which persons and things are inter-related" and "to capture the vitality of lived processes by which ideas of objectivity and subjectivity, persons and things, minds and bodies are entangled." Taking what they state as a "processual view" they advocate to think about "things" more broadly as strategies, processes and tools for the materialization of social relations.

[9] Following upon the legacy of Turner's performative ethnography, i.e. performance as a method was employed especially by Conquergood, 2002.

[10] By 1996, when Feld coedited Senses of Place with Keith Basso, it was evident that to study a place was to study people in multiple sensorial dynamics with this place, phenome-nologically. This also changes the dynamic between structure and agency, placing increasing importance on the agency of practice.

[11] Seminal writings also included that of Hal Foster, 1996, critiquing the relationship of artists and anthropologists. The growing discourse and relationship between artistic practice and ethnography became further articulated in books such as Making by Tim Ingold, 2013 arguing (in part) for the closer interplay and collaboration between artists, architects and anthropologists.

[12] This is admittedly a limited selection of theorists, and Foucault, as others certainly were part of these shifts as well.

[13] See Chua and Elliot (eds.). 2013.

[14] This is evidenced in programs and projects addressed to art historians, archeologists art



restorers, and other academics that include the Making and Knowing led by Pamela H. Smith at Columbia University (<https://www.makingandknowing.org>), the Minding Making Program at Harvard Program (<http://www.mindingmaking.org>), the ARTECHNE five-year project led by Sven Dupré at Utrecht University and the University of Amsterdam supported by the European Research Council, (<https://artechne.wp.hum.uu.nl>) and the recently completed Knowing from the Inside, five-year Project funded by the European Research Council led by anthropologist Professor Tim Ingold at the University of Aberdeen (<https://knowingfromtheinside.org/files/#about>). Ingold's project focused especially on exploring the intersections between anthropological and scientific investigation with artistic experiential and experimental forms of research.

[15] See publication *Ways of Knowing: New Approaches in the Anthropology of Experience and Learning*, Harris 2007.

[16] See Feder-Nadoff 2017: 258, Feder-Nadoff 2004: 47-48; Barrett, 1987: 64; Maldonado, 2006: 108; Pérez, 2004: 380-385.

[17] See for example Warren, 2004 and Hosler, 1995.

[18] Although this is anecdotal, and requires more extensive research, other village artisans have also talked about how these artifacts were readily discovered in many locations in and around the village. Their abundance and accessibility made them an easily available source of copper the most expensive material needed in this work. Presently due to so much more consciousness of the value of these artifacts I think this would not happen. But in the past in some ways this was the "ecology" of their environment, as the wood from the trees, and theirs to be used as they needed.

[19] These laminators, rolling mills, have been in production for at least two decades or more, increasing in number over this time period. They provide much needed work for men in town, however the work is also for men unskilled in copper-smithing as their trade. For example one young man who is an albañil, a builder, experienced in cement-pouring, core to most home construction. But as many good albañiles in Mexico, he is quite versatile and hardworking and can also lay floor or wall tiles. He is working for one newer laminator making a steady living. He was invited to work in the mill after doing work for the owner's private home as an albañil.

[20] Up until 2009 when I still lived mostly in Chicago, I worked on copper vessels in my own studio with copper discs brought back from Santa Clara.

[21] Thank you to Louise Lincoln, former director of the DePaul University Art Museum for informing me of this term.

[22] Maestro Pérez passed away June 24, 2014. These shifts are not the focus of this essay although they are important to keep observing in the ethnography.

[23] See Turner 1969, 1974.

[24] See Turner 1987: 74, 100, 106.

[25] See Turner, 1979: 467; 1987: 101; 1967: 105.

[26] See Turner, 1969.

[27] See Feder-Nadoff 2017: 303.

[28] See Venkatesan (2009) on traditional Indian craft and his employment of the concept of the heterotopia borrowed and expanded from (Foucault 1986 [1967]) to explore this aspect of assemblages of insider and outside agents and powers in the heterotopia of craft. As Foucault defined this heterotopia is "a space in which to socially realize utopia, [...] an imagined perfect place or state of things (Venkatesan, 2009: 78).

[29] See Gatt (2018: 9.)

[30] Ingold 2016, is here critiquing Gell's theories of abduction citing him (Gell 1998: 14-16). However I disagree with the complete dismissal as Gell does stress performativity and performance of not only the thing, the object produced but the techniques and how things are made



and perceived socially through the senses, despite his refusal to use the word “aesthetics.” [31] See Gatt (2018) on the “now mainstream notion that “culture” emerges from dialogical process via Tedlock and Mannheim (1995), has entailed acknowledging that anthropological knowledge is also inter-subjectively composed.

[32] This conceptual analysis is further developed in the paper currently in revision for publication.

[33] Conversely when vision is discussed, it is often presented as a disembodied function.

[34] This also points out to the error of the often-used phrases like “hand-made” as if the hand is disembodied. This may relate to notions disembodiment writing to “elevate” it beyond CORPOREALITY to the equally disembodied abstract concept of cognition and knowing.

[35] There are two kinds of mistakes here to be noted, as two forms of un-knowing: One, is when one does not or cannot perform the required actions effectively and one realizes this because internally it hurts, or bothers you. Sometimes the external results of one’s performance makes one alert to the mistakes, and one tries to unravel what went wrong. As apprentice the other way to recognize mistakes, is as a novice through the regaño, the critique. As Mauss 1973, pp. 72, recalled this as embarrassing; being called out for shaking his arms when he walked, taught him what was the manner he was to walk. However there was still a gap between the social-cultural and physical biological that had to be bridged through practice, performance and repetition brought on by the consciousness that was evoked by being shamed.

[36] There is much more to be said and researched in these areas. The purpose in this paper is to show how practice makes available information about the body that can inform scientific studies and that these scientific studies do not necessarily contradict embodied knowledge but help us understand the our theoretical intuitions found in participant observation and in general practice.

[37] This visual material also included extensive photography and video as well as diagrams throughout the development and execution of my thesis. The professors I worked with had dividing reactions, some were not visual and could not understand them and those that were more visual appreciated them. As a result in my final submitted and approved doctoral thesis, I deleted all diagrams and drawings and separated out all photos.

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**[Michele Avis Feder-Nadoff](#)** is an artist (BFA, MFA, The School of the Art Institute of Chicago) and anthropologist (PhD, El Colegio de Michoacán, Mexico). Her doctoral project "Body of Knowledge—between praxis & theory—The Agency of the Artisan and their Craft, Santa Clara del Cobre, Michoacán: Towards An Anthropology of Making" was based upon long-term apprenticeship to the village master coppersmith, maestro Jesús Pérez Ornelas (1926-2014) in his family forge. Feder-Nadoff's research integrates extensive ethnography and community collaboration initiated in 1997. Her PhD was funded by National Council on Science and Technology in Mexico and El Colegio de Michoacán, 2012-2017. Feder-Nadoff is a Fulbright Scholar (2010-11), editor of *Rhythm of Fire: The Art & Artisans of Santa Clara del Cobre* (2004) and director-producer of *Night-Blooming Jasmine* (2006), the accompanying poetic video documentary. In 1998 she co-founded Cuentos Foundation which operated out of her artist studio through 2009. Mid-career retrospectives were held at the Brauer Museum of Art and Rockford Museum of Art in 2013. She was a visiting researcher in Tim Ingold's *Knowing from the Inside* project, University of Aberdeen, Scotland May-June 2017 and April-May 2018. Web: [www.michelefeder-nadoff.com](http://www.michelefeder-nadoff.com)