Sensing the Life of Material  
*Mammoth Ivory and Craftsmen’s Work*  

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**Abstract:** This article is devoted to the work of ivory carving artists in Sakha (Yakutia). It analyzes the ways craftsmen use, engage, and relate to mammoth ivory in their creative work. They start each carving project with consideration of the material, its quality and condition. Material often dictates the ways the creative idea develops and predetermines the outcome. Attention to the material is an important aspect of the relational engagement with it. Mammoth ivory, due to its structure, responds to climatic fluctuations, which is often described by artists as “breathing,” and it therefore demonstrates the qualities of an active material. For craftsmen, mammoth ivory is an agent and sentient material. The article contributes to the discussion of the importance of material in creative work.

**Keywords:** carving, craftsmanship, mammoth ivory, mammoths, material, Sakha (Yakutia)

Mammoth ivory, a material derived from an extinct ice-age mammal, is widely used by ivory carving artists in Sakha (Yakutia). In this article I wish to draw attention to the material itself, its qualities and the ways craftsmen engage with the material. Harries highlights the importance of handling objects from the past and how this tactile experience helps dissolve the distinction between past and present. This article extends the notion of “touching the past” (Harries 2017) to the work of ivory craftsmen when they handle ancient mammoth tusks, not in the sense of being affected by or having an experience of the past, but in the sense of appreciating and building relations with this unique raw material. The notion also emphasizes tactility, an important aspect of carving, fundamental for understanding the material prior to engagement with it.
This article focuses on carving artists’ understanding and appreciation of mammoth ivory and investigates the relationship craftsmen establish with the material in their art. While mammoth tusk might be thousands of years old, it continues to fluctuate due to its structural properties. Craftsmen respond to the behavior of the material and carefully consider these special qualities when creating a new artistic object. Professional carvers in Sakha (Yakutia) evaluate the material first, and the raw material is an absolute starting point for envisaging an artistic idea. A carving project thus emerges from what the material can offer. Artists often describe this process as attunement to the material; they emphasize the importance of “feeling” the material, for instance, using the word *chuystovat’* (Rus.). I argue that carvers understand the material from a relational perspective and speak about the raw material in active and agentive terms (Gell 1998; Malafouris 2008), involving careful negotiation with the material.

The article emphasizes the importance of haptic appreciation of the material, because through touch, the carving artists get to know the material and understand it better. But they also understand their relationship with the material as multisensory, referring to appreciation of the material as “listening with one’s hands.” Visual perception, tactile appreciation, and listening with hands are ways of establishing a relationship with mammoth ivory, an active material that demands attention in the creative process. This discussion contributes to many conversations that scholars researching sensory perception continue to have (Bronner 1982; Harries 2017; Howes and Classen 2013; Ingold 2000; Paterson 2007).

The research for this article was conducted within the project “Narrative Objects: The Sakha Summer Festival and Cultural Revitalization,” funded by the UK Arts and Humanities Research Council and based in the Department of Anthropology at the University of Aberdeen. Between 2015 and 2018 the team of researchers (Alison Brown, PI; Eleanor Peers, postdoctoral researcher; and the author of the article) conducted numerous research trips to the Republic of Sakha (Yakutia), where we interviewed carving artists, art historians, museum workers, ethnographers, and educators. In Yakutsk and surrounding rural settlements we observed the artists at work and engaged in conversations with them at round tables, shows, and in their workshops. For this article I have focused on the interviews and discussions held with professional carving artists in the city of Yakutsk. This article is built around one of the most significant themes raised in these conversations: the material. As is demonstrated in what follows, the material—mammoth ivory—is where it all starts.
Mammoths in History

For many centuries mysterious and extinct mammoth species have been a source of inspiration and raw material for practical and creative works in the north-eastern part of Russia. Woolly mammoths are probably one of the most enigmatic animals to have walked the earth. Their existence has always been shrouded in mystery, with only nebulous rock drawings made by ancient people serving as confirmation of their co-existence with humans (Okladnikov 1970: 17; Stone 2001: 7). The bones and tusks of mammoths found in the ground were perplexing and seemed to be part of a gigantic puzzle that needed to be put together. Not surprisingly, these mysterious animals have stirred up much curiosity throughout history. While people had many unanswered questions, they also created many stories and tales that offered some explanations about the unusual findings.

Yet the impact of mammoths’ existence has always been tangible. The tusks were a valuable raw material and a precious trade item, as described in the reports of the eighteenth- and nineteenth-century travelers to Yakutia. One such account was made in 1666 by explorer Nicolaas Witsen in his book *Noord en Oost Tartarye*, based on his travels in Russia and Siberia. In it he mentioned legends about the animal that allegedly lived underground (Laufer 1925: 28-29). He quoted local residents who referred to the bone findings as *mammouttekoos*, where *mammout* stood for the animal and *koos* (*kost’* in Russian) for bone (ibid). The origin of the word, while not very clear, might be from an Arabic word, *mehemoth*, as suggested by Strahlenberg, meaning a monster or giant (Laufer 1925: 29). By referring to this etymology, Witsen thus coined the term “mammoth.” According to a different version, this word has a Finno-Ugric origin and comes from *maa muut*, which translates as an earth mole (Protopopov et al. 2018: 4). Sakha people have a different name for mammoths, referring to them as *selii*. The origins of this designation are unclear (Lazarev et al. 2007:1).

In 1799, German naturalist Johann Blumenbach presented the first realistic interpretation of the skeleton findings and gave a scientific name, *Elephas primigenius*, to what would have been a gigantic ancient animal: a mammoth. It is now known that this ancient species existed in the Pliocene and Pleistocene periods, partially alongside humans, who hunted them for meat and utilized their skins, bones, and tusks. There are still debates around what made this powerful species extinct; it is believed that an abrupt change in climate and the progressive warming of the climate increased precipitation and caused the decline and
subsequent extinction of mammoths in the Late Pleistocene (Boeskorov 2005; Fordham et al. 2021). Human activity may also have contributed to their decline (Vereshchagin and Baryshnikov 1985).

Sakha (Yakutia) has been known for its large reserves of mammoth tusks for a long time. The mammoth ivory trade with China was ongoing as early as the tenth century, according to one source (Laufer 1925), yet some believe it was earlier still (Kuznetsova and Starodubtseva 2009; Potravnyi et al. 2020; Yakunina 1957). According to these sources, not only did people from Siberia travel to Mongolia and China to deliver ivory to the markets, but, allegedly, Chinese collectors travelled up to buy tusks on the spot as well (Digby 1925: 21; Pfizenmayer 1939: 183). At the start of the nineteenth century, the trade in mammoth ivory was “lively” and “the quantity of fossil ivory which was sent from Siberia to the European markets was enormous” (Laufer 1925: 32). In 1923, about 57 puds (929 kg.) of ivory was collected for sale (Potravnyi et al. 2020: 112). As the trade continued, mammoth ivory was processed and carved in various places, such as Khiva, in present-day Uzbekistan, a major stop along the Silk Route (Laufer 1925: 33). While mostly intended for sale in the south, some ivory was retained for the markets in Yakutia, where it was predominantly used for carving.

Today, Sakha (Yakutia) continues to be an important region for the mammoth ivory trade, and tusks are still a valuable commodity. Mammoth remains are incorporated into the matrix of social and economic life in these northern settlements, where the welfare of many people in small Arctic villages depends on harvesting ivory (Potravnyi et al. 2020). Every year, 100 tons of mammoth tusks is sold through legal trading chains (TASS Russian News Agency 2019). The federal and republican legislation is becoming stricter, to prevent illegal trade and ecological damage in the areas where mammoth remains are collected (Potravnyi et al. 2020).

Yet, mammoth ivory is more than just a trade item. Mammoth symbolism is part of the modern narrative in Sakha (Yakutia). The image of the mammoth, a treasured prehistoric animal, has become an emblem of the region, as conveyed by the current head of the region: “Mammoth is an animal that exemplifies the frost and harsh region of Yakutia. This is our visiting card ...” (Aisen Nikolaev in Protopopov et al. 2018: 2). Mammoths have firmly occupied their place in the social and cultural arenas of the republic: folklore and storytelling, visual arts, literature, and even cartoons for small children (cf. Arzyutov 2019). Like other animal imagery used for cultural representation, the mammoth has acquired an iconic status and has become a powerful symbol of connection to the land, ancestry, rootedness, and history. Mammoth remains and
ivory have turned into a commercial project too; mammoth symbolism is used widely in the tourist industry and souvenir kiosks are bursting with mammoth ivory carvings of small figurines (often of mammoths, naturally), key rings, and knick-knacks for tourists.

**Ivory Craftsmanship**

Palaeolithic mammoth ivory carvings are found in ancient settlements across Europe, and they demonstrate the thriving art traditions of early hunter-gatherers (Mithen 1998; Oliva 2021; Wengrow 2011). Yet in the territory of Yakutia there is no evidence of ivory use in the archaeological findings from early settlements; instead, these sites have revealed large amounts of pottery objects and items made with birch bark. Based on this, archaeologists have proposed that craftsmen in the early settlements preferred working with metals, wood, and clay, as well as stone and horns (predominantly cattle and deer), and that this familiarity with these media was an important precursor for working with ivory.

As a tradition, ivory carving in Yakutia was established only at the end of the seventeenth and beginning of the eighteenth centuries under the strong influence of the northern Russian style of carving (Ivanov 1979: 4). Mammoth ivory objects—usually of a utilitarian and decorative nature (e.g., jewelry boxes, frames, combs), carved in the village of Kholmogory in the Archangel region—were brought to Yakutsk by passing tradesmen and merchants. Sakha craftsmen, however, did not just copy these objects, but incorporated the Russian fashion of carving into their work and created their own unique style (Ivanov 1979: 23; Ivanova-Unarova and Alekseeva 2021: 78; Korol’kov 2012:73). Fear of handling the remains of mammoths due to long-standing animalistic beliefs prevented local people from engaging with this material for a long time, but was assuaged by carvers through a ritual of asking for forgiveness from the spirits and offering a sacrifice (Ivanova-Unarova and Alekseeva 2021: 78). Despite acquiring this skill relatively recently, historically speaking, Sakha craftsmen took to ivory confidently and succeeded in mammoth tusk carving by transferring their familiarity of working with wood and silver and applying these techniques to ivory. This also explains why such a relatively recent skill was embraced by Sakha craftsmen quickly and found its own niche in the Sakha traditional material culture.

*Uus kihi* (a craftsman) is a general description of a male who is good at making things; this title designates not only a person’s dexterity but also his mental capacity and clever thinking, which earned *uus kihi*
respected standing in his community. Traditional Sakha craftsmen were polyhedral, and rarely was there a specialization in working with a specific type of material—on a mundane level, one had to do many things and engage with different materials. One of the characteristics of *uus kihi* was the ability to work with different materials, easily switching between carving silver, wood, or ivory, often without favoring or specializing in any specific medium. Contemporary skilled Sakha craftsmen, many of whom are professional carving artists, maintain their multifaceted crafting skills, which enable them to remain open to new opportunities. Many contemporary ivory carvers often alternate between wood, silver, steel (making Sakha knives), and even ice carving.

**Mammoth Ivory as Material**

Materials give birth to objects, reminding us of the root of the word, which comes from “mater,” meaning “mother” in Latin (Ingold 2011: 27). Materials might appear static and fixed, but they are always transforming and in constant flux. It is important that we look at a material’s behavior and pay attention to its active side. Mammoth tusk, in that sense, is an intriguing material to follow and observe its behavior. While the term ivory applies to elephant tusks, other similar kinds of materials are included in this notion. As Hodges (1988: 154) notes, “Ivory tusks are the upper incisors of the elephant, but unlike other teeth they are not covered with enamel ... The tusk is thus composed almost entirely of dentine, with a relatively small pulp-cavity at the base.” From a distance, one can mistake chunks of ivory for pieces of wood, until they end up in one’s hand. Then the solidity, weight, and coolness of the ivory surprises and creates a completely different tactile experience. Experienced carvers and young artists alike often talk about mammoth ivory, the natural environment in which mammoths are found, the remoteness of areas where it is found, and the difficulties of accessing the material, as well as climate change, which exposes remains of mammoths from melting permafrost. Ivory interacts with different materials and substances found in the surrounding environment: the great variety of colors ivory takes from touching clay, peat, or moss, the swelling it develops from being exposed to ice and water, or the way it cracks from salty soil. Figure 1 demonstrates how the pigment from the peat that had surrounded the tusk as it lay underground was absorbed into the material, and, over time, created swirling patterns and colors.
Figure 1. Colored piece of ivory. Photo: T. Argounova-Low
Mammoth tusk displays a diversity of shades from white to yellow and dark brown due to its absorbent properties. Naturally occurring pigmentation of ivory can also reveal a subtle texture of veins and threads visible on the surface that makes it particularly attractive and more appropriate for certain kinds of artistic work. A craftsman will carefully consider the variation of color and shades of the raw material from the start and focus on these natural variations when thinking about an emerging object.

The structure of the tusk reveals layers of dentine that grow on top of each other in a cone, or “blades” as they are called by biologists (see Figure 2). A wide range of mammoth tusk artifacts found at early Upper Palaeolithic sites in Central Russia confirm that ancient people knew about this structure and were able to separate layers of tusk (Khlopatchev 2001: 446). These archaeological findings show how mammoth tusk was split into small, curved, funnel-like segments (“sugar cones”) by using a knapping technique. The size of split and separated tusk cones would predetermine the size of objects made from them (Khlopatchev 2001: 1). Only with the technological advancement of tools did it become possible to work with larger and thicker pieces of ivory.

Mammoth ivory’s properties are similar to those of elephant ivory and, when cut into smaller pieces, it becomes hard to distinguish them unless under a microscope (Bending 2019). The similarity between the two is such that, on the international trading market, mammoth tusk, although its quality can be variable, is equal to the lower grades of elephant ivory (Kirillin 2009: 58). Due to this similarity, the demand for mammoth tusk is huge and continuously growing. In 1989, a ban on elephant ivory trading was implemented via the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) as a response to elephant poaching which, in turn, reduced supplies of elephant ivory. The sanctions put on the often-illegal supply of elephant ivory pushed up the demand for mammoth tusks considerably (Gao and Clark 2014), which has an impact on the quantity and quality of material local Sakha carvers can obtain, as the best quality material is exported abroad.

Compared with other bone material (walrus tusk, moose horn, etc.), mammoth tusk has particular qualities that make it excellent for carving. It is a relatively soft material, which enables detailed carving
Figure 2. Blades ("sugar cones") visible on a piece of tusk. Photo: T. Argounova-Low
and, when polished, a warm shine or glow results. Mammoth ivory can modulate more than any other bone material due to its structure, often described by carving specialists as a **setka** (mesh) (see Figure 3). The mesh structure allows ivory to fluctuate, swell and expand, or reduce and shrink, depending on the surrounding environment.

The mesh structure provides ivory with a hydroscopic property. Craftsmen knew about this property and utilized it to their advantage; they would soak tusks in water to make the ivory even more supple and easier to carve. In dry conditions, the loss of moisture leads to ivory shrinking and developing splits and hair-like cracks. Prolonged exposure to dry air after permafrost melting will create lateral splits of the tusk, which makes carving more difficult and increases the risk of breaking. Craftsmen, aware of this tendency, use dry material to assess the overall condition of the tusk. They can also exploit a tusk’s structural properties; for instance, hair-like cracks can be fixed by simply putting an object in a more humid environment, which closes the cracks through swelling, often described by the artists as “breathing.”

**Figure 3.** *Setka* (mesh) visible on the carved object. Photo: T. Argounova-Low
At the Sivtsev Museum of History and Ethnography in the village of Namtsy, a small permanent exhibition displays old wood carving tools, scrapers, and implements for hole making (see Figure 4). These tools, as the museum guide explained, were also applied to tusk carving. Missing from the display is a sharp Sakha knife, the most universal tool, which was commonly used for carving (Jochelson 1933; Seroshevskii [1896] 1993: 382). By the end of the eighteenth century, additional technological implements were introduced for processing ivory: saws, files, drills, and clasps, as well as manufactured tools (Ivanov 1979: 6). While the oldest samples of carving did not have the fine detail and were carved using primitive tools, with the development of technology the complexity of carving increased. By the end of the nineteenth century, Sakha craftsmen were well equipped with a range of carving tools, including rotating equipment to cut cylinders and hand-operated drills.

**Following the Material**

... a simple rule of thumb: to follow the material.
—Ingold 2007: 314

In some artistic processes the idea comes first, following some inspirational moment, and a material with the capacity to hold the idea is
found to match it. An artist, enthralled by a creative idea, will be able to find the right material and tools and will start introducing their idea in the material. In painting it will be the canvas, paints, and brushes. In other creative processes, the consideration of the material comes first and the idea or the project emerges from what the material can offer. Contemporary professional carvers in Yakutsk, for example, make it very clear in discussions of their practice that consideration and evaluation of material is of utmost importance to them. In carving, most of the time the raw material is an absolute starting point for envisaging an artistic idea. There are certainly occasions when the idea needs to find the material, and only if there is suitable raw material will the artist be able to execute their idea; but usually consideration of the material precedes the idea. Vasilii Amydaev, a carving artist, explained:

The quality of material already predetermines an object. A project mostly depends on the quality of the material and whether it has cracks or flaws. Top-quality material gives more freedom in deciding what will come out, more room for creativity. One needs to avoid cracks and think about various ways, shapes, and the scale of the end work. For carvers it is more difficult in this sense than, say, for gold- or silversmiths. They can implement any idea, provided they have enough gold and silver, whereas with the carvers, the material dictates pretty much what will happen. So, in all respects one starts with the material, the color, the quality, and the shape. Moose antlers, for instance, are dark and grey, mammoth tusk can be of different shades ranging from absolutely white to yellow or brown. Again, moose antlers are flat as well, so it is impossible to give lots of dimension to the objects made with antlers. (Personal Interview with Vasilii Amydaev, 27 July 2016, Yakutsk)

An artist will start the process with a careful inspection of a piece of material, noting quality, color, and shape, paying special attention to the tiiniest of cracks. Every aspect of the material is taken into account and carefully considered, as they will predetermine the result. He will then start visualizing designs and what shape and form this material can be turned into. As such, the material dictates what the object is going to be. Such dependence on the material might appear restrictive and imposing, but artists do not see such considerations of the material’s qualities as limiting, and they describe this process differently. The process of evaluation for them is an assessment of possibilities and opportunities, rather than restrictions. It is not a straightforward and direct application of the craftsman’s plans and ideas into carving, but instead a careful contemplation of the material.
Carving artists enjoy talking about the materials, explaining what happens to the mammoth ivory in the process of work, and often these explanations turn into storytelling sessions. The carvers speak a great deal about the unique qualities of mammoth ivory, which they consider to be a malleable and poslushnyi (obedient) material. Yet at the same time, they recognize the active aspects of the mammoth ivory from the moment they are in close contact with it. The properties of materials, although seemingly fixed attributes, are active and relational and can be grasped only through engagement and interaction (Ingold 2011: 30). When working with ivory, the carvers often describe swelling and contracting of ivory as “breathing” and speak about the behavior of the material in active and agentive terms. Carvers understand the material from a different perspective and refer to the material as a sentient entity; a common expression among them is to pochwystvovat’ material (feel or sense the material). Therefore, the process of carving, even more so at the initial stages of the process, can be better described as relational, involving careful negotiation with the material. This relational aspect implies establishing a dialogue with the material, where the maker and the material contribute to the creative project. As Tim Ingold writes, “The experienced practitioner’s knowledge of the properties of materials … is not projected onto them but grows out of a lifetime of close engagement in a particular craft or trade” (Ingold 2012: 434). To start a project, one must understand the material and the potentialities the material offers, and be able to respond to them. Craftsmen not only relate to the raw material but to the object emerging from the piece of ivory. It is therefore not simply the material that concerns artists but, rather, that the raw material and the idea are inseparable, as demonstrated in this vignette:

_Fedor Markov is showing us around his workshop. In the corner of his studio by the window is a workbench with tools and electric equipment for sawing, grinding, and polishing. Various ivory pieces are stacked on the surface. Some are small pieces, some large, some clearly cut by an electric saw, with precise and clean angles. Still, some pieces are less uniform, with rugged splits and fragments that separate easily. Fedor has something to say about each piece, commenting on its quality, how it acquired its color, and how he might use it. From now on, this chunk of ivory will start transforming from an anonymous piece to an item with identity, from raw material to a thing with lines of significance, from something of general description to an object with a particular story and its own voice._
Attunement to the material when working with mammoth tusk means the craftsmen must be flexible, open to diversions and unscripted scenarios. In other words, the carvers see their work as a process, not as a goal, and are ready to improvise when they create a new piece. Indeed, improvisation is a fundamental part of working with mammoth ivory. Forcing fixed ideas onto this material might not be possible due to the flaws and cracks that need to be circumvented. Moreover, an imposition of the idea onto the material does not respect the agency of the material and treats it as passive and inert. Superimposed or dictated ideas are against the logic of a relational attitude to the material.

To make things, then, is not to transpose a form onto material, but instead to engage, to work with, and to relate to the active material (Ingold 2011: 212). Mammoth tusk serves as a good illustration in support of the thesis that material is, in fact, an agent in such creative work (Gell 1998: 16). I agree with Lambros Malafouris’ (2008) proposition to focus on “material agency” in order to redress an anthropocentric perspective and an imbalanced notion of human agency. He states: “If human agency is then material agency is, there is no way that human and material agency can be disentangled” (Malafouris 2008: 22). Close observation of carvers’ work demonstrated again and again the great importance of material for carvers and how material predetermines many outcomes. Malafouris argues that agency and intentionality are not properties of things, nor are they properties of humans; agency and intentionality emerge through material engagement, relations between maker and the material (ibid.). Agency is therefore something that emerges; it is not a given and does not exist a priori. From the moment a carver’s hands start touching the tusk and feeling the rugged edges, the uneven surface of the outer layer and the smallest of gaps, the agency of the material becomes felt, “in our sensuous realization of the peculiar qualities of this material” (Harries 2017: 125).

Scholars have highlighted how touch is important for visually impaired people (Howes and Classen 2013). However, speaking to the carving artists in Sakha (Yakutia) emphasized their dependence on haptic appreciation of the material. Through touch, the artist is getting acquainted with the material, learning to know it better, and becoming attuned to it. Carving artists rely on touch to appreciate the quality and texture of the ivory in “palpable artefactual terms” (Bronner 1982: 3). Truly, carvers are active “manipulators” accompanying their visual grasp with haptic experience, as touch provides ascertainment and better apprehension (Bronner 1982; Paterson 2007). American folklorist and anthropologist Alan Dundes allegedly once said: “Seeing is be-
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believing, but feeling is truth” (in Bronner 1982: 352), emphasizing how handling becomes essential in understanding the objects.

Mark Paterson discusses tactile and spatial experiences of visually impaired people and refers to the early works of the philosopher Descartes, who hypothesized that blind people “see with their hands” (Paterson 2007: 38). This analogy is applicable in the ivory craftsman’s workshop, too. There, as for visually impaired people, seeing with hands turns into a prerequisite and a tool. Of course, for a carver, vision is important, but it is not sufficient on its own—the carver needs to complement his visual grasp by touching the material and the object as he continues working on it. Without this tangible sensory experience, our ivory carver will not have exhaustive information about the material to operate with; he will lack complete understanding of the scope of his project and therefore will not be fully equipped for his work.

Furthermore, carving artists see their relationship with the material as multisensory, not only through vision and physical contact, but also because they refer to their experience as auditory too. The initial phase of forming a relationship with the material, that of establishing a dialogue, was captured in the words of Oleg Solov’ev, a teacher and a carver, who stressed the ability to “listen with one’s hands,” which conveys perfectly the full range of sensory engagement and involvement with ivory. Solov’ev emphasizes the significance of acute perception in carving work. He often instructs his students to “listen” with their hands, thus highlighting the importance of tactile engagement with ivory, feeling the material, its shape, dents, and cracks. “Listening” to the material, which is of course audibly silent, implies that carvers not only perceive the visible features of the ivory, but also implies a correspondence aspect between the carver and the material. Visual perception, tactile appreciation, and listening with hands are ways of establishing a relationship with the material and its corresponding aspects, which inevitably responds to the artist’s engagement. This short scene observed in the studio describes “listening with hands” best:

_Fedor has received a new batch of ivory for a new piece of artwork he has been commissioned to make. These chunks of ivory are in a bashed brown cardboard box, which is about to fall apart under the weight of the ivory. Fedor, who initially opened the box to demonstrate the variety of material he gets and the different shades and textures, suddenly finds a piece that catches his attention. He takes it in his hands and becomes silent and absorbed, forgetting about our presence in the room for a moment. He is twisting and turning the piece in his hands, running his fingers against the uneven and rough surface of the unpolished ivory. Fedor peers into the cracks and rubs_
his thumb on them, he then lifts the piece up to the light to see the brownish color more clearly. It is very quiet in the room, and we can hear retro music being played on the radio in somebody’s workshop along the corridor. He then, as suddenly as he stopped talking to us, turns back to us with a smile and announces that this piece will be used to make a bird, and the gradual change of brown from very dark to lighter, almost beige, will become a widely spread wing. “This will be a Luo bird. Do you know this mythical creature?” he tilts his head inquisitively. Disappointed at our negative response, Fedor starts retelling the olongkho\textsuperscript{3} episode relating to this mythical semi-dragon, semi-fish, semi-bird creature.

Mark Paterson (2007) discussed transfer from vision to touch and to hearing, questioning our assumptions of priority of some senses over others, and asked whether our sensory perception is cross-modal or amodal from the start. If our perception is indeed amodal, the distinction we make between sensory modalities used in perceiving the world around us does not really matter, and it then makes perfect sense for the carvers to understand, evaluate, and judge the material with which they are working as listening with their hands.

Listening and being responsive is essential in the relationship between the ivory carvers and the material with which they work. While chiseling ivory, the carver not only shapes an object but also creates a balance between the idea he is in the process of realizing and the affordances presented by the material. Listening and being attuned means exactly that—the ability to create a perfect balance between the idea and the possibilities provided.

**Conclusion**

The region of Sakha (Yakutia) has been known for its large reserves of mammoth tusks, which remain an important commodity in the region. Today, mammoth ivory is associated with traditional craftsmanship in Yakutia and is an important part of the creative arena in Sakha (Yakutia); mammoth ivory carving is a prominent form of art in the republic. Historically speaking, ivory carving in Yakutia is a recent artistic endeavor, which formed under the strong influence of the Russian North, but with time Sakha craftsmen developed their own style, and the artform found its own niche in Sakha traditional material culture.

Following ideas from Ingold (2011), this article focusses on mammoth ivory, highlighting the prominence of the material in creative work and investigating the relationship craftsmen establish with the
material in their art. Through interviews with carvers, it became possible to investigate the qualities of mammoth ivory, a unique material, and observe its behavior. Carvers pay careful attention to the qualities of mammoth ivory, which they consider to be a malleable, obedient (poslushnyi) and agentive material.

This case study has demonstrated how ivory, which might appear static and fixed, is nevertheless always transforming, thus demonstrating its active side. Due to its structure, often described by experts as setka (a mesh), the tusk has hydroscopic properties; it can modulate, fluctuate, and interact with different elements and substances found in the surrounding environment. It changes its color due to absorbing qualities, and swells and shrinks depending on humidity. Carving artists who know about these properties carefully consider variations of color, cracks, and splits when designing a new object for making. It is argued that carvers understand the material from a relational perspective. Indeed, carvers often speak of ivory in active and agentive terms. For them, ivory “breathes” and “behaves,” and they describe fluctuations as movements. In conversations, carvers often talk about the importance of feeling and listening to the material.

In mammoth ivory carving, the material comes first and the idea or the project emerges from what the material can offer. For contemporary professional carvers in Sakha (Yakutia), evaluation of material is of utmost importance to them and the raw material is a starting point for envisaging an artistic idea. While dependence on the material might be restrictive, artists do not see such considerations of the material’s qualities as limiting and describe this process as careful contemplation, listening, and attunement to the material. Carvers often refer to the material as a sentient entity and emphasize how important it is to pochuvstvovat’ material (feel or sense the material). Therefore, the process of carving, even more so at the initial stages of the process, can be better described as relational, involving careful negotiation with the material. This relational aspect implies establishing a dialogue with the material, where the maker and the material contribute to the creative project.

This implies that craftsmen should remain flexible, open to diversions and unscripted scenarios. Often carvers see their work as a process, not as a goal, and are ready to improvise when they create a new piece. Improvisation is a fundamental part of working with mammoth ivory and respects the agency of the material. Superimposed or dictated ideas are against the logic of a relational attitude to the material. Mammoth tusk is a good example of the material that is agentive in such creative work. Malafouris’ (2008) proposition to focus
on “material agency” is crucial, as close observation of carvers’ work in this case study demonstrated again how material predetermines many outputs. Malafouris argues that agency and intentionality are not properties of things, nor are they properties of humans; agency and intentionality emerge through material engagement, relations between maker and the material (Malafouris 2008).

This article has highlighted how carving artists in Sakha (Yakutia) for the larger part of their work rely on haptic appreciation of the material. Through touch, they get acquainted with the material, know it better, and become attuned to it. Carvers are active “manipulators” who accompany their visual grasp with tactile experience (Bronner 1982; Paterson 2007). Carving artists see their relationship with the material as multisensory, mediated not only through vision and physical contact, because they refer to their experience as auditory too. They stress the importance of being attuned to the material and the ability to “listen with one’s hands.” Visual perception, tactile appreciation, and listening with hands are ways of establishing a relationship with mammoth ivory, an active material that demands attention in the creative process.

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Notes

1. In Sakha (Yakutia), carving is perceived as a traditionally male occupation; however, there are a few professional female carvers now.

2. For instance, some ivory carvers are also renowned for their mastery of ice carving and often compete at the international ice carving festivals held in winter.

3. Olongkho is a traditional Sakha oral genre of telling stories.

4. The adjective “sentient” is a translation from chuvstvuiushchii (one that can feel or sense) and is comparable with how Evenki hunters mark their relationship with the tundra (Anderson 2004:116). The use of the adjective “sentient” in this case study is based on Sakha animistic cosmology and their understanding that everything created by nature has a soul and a living spirit in it, and therefore requires respectful treatment.

References


