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STONESOUND

Living with stones, lithic affect,
and aural co-domestication

Extract from: Gilles Aubry, *Sawt Bodies Spaces*.
Sonic Pluralism in Morocco, adocs 2023.
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VIDEO
STONESOUND
by Gilles Aubry and Abdeljalil Saouli
2019, 10'23", HD video
<https://arbor.bfh.ch/18258/3/st.mp4>

When I was a child, I could see only stones when I left my house. Stones allow us to ask heavy questions. Stones are weighty, they fall, they change with the seasonal cycles... I've slept with stones and understood many things through them. Sometimes I can feel heat from the stones, there's a connection between us... Their state changes, they become powder. When I hold a stone, there's a sensation and if I search more, I discover more. In such traces I can read messages. There's no need for a written language for humans to be in relation with non-humans. I want to make a library of stones.

- Abdeljalil Saouli, artist in Moulay Bouchta al Khamar

The lines above stem from a panel discussion with the artist Abdeljalil Saouli as part of an exhibition at Le 18 in Marrakesh in 2018. Using simple words, he evokes the richness of his year-long interactions with stones in his native village of Moulay Bouchta al Khamar. Although I was well aware of the use of natural materials in his art practice, it was the first time I heard him expressing a personal and affective connection to stones. So far, my research on ecological voices in Morocco had brought to my attention a few cases of human-stone interactions: stone cairns and sacred caves in relation to sainthood in various regions; paleolithic rock art in the Atlas mountains; and industrial rock mining, which started during the years of the French occupation and today represents a major source of income for the Moroccan state. In his statement, Abdeljalil Saouli pointed to new ways of approaching sonic materiality in my research. I started to see connections with building techniques and vernacular architecture, as well as with domestication processes between people and their environment. I was keen to hear more about Abdeljalil Saouli's daily experience of cohabiting with stones, of knowing through them, and of building and making art with them. I was also curious if other people in the village had similar experiences with stones and rocks, how they would talk about them, and about the ways stones were part of a larger eco-social environment. Above all, I was keen to join Saouli in artistic sound experiments and to enter a conversation with him about listening, sonic materiality, and natural forces. The present chapter retraces the findings and observations resulting from our collaboration in Moulay Bouchta, presented here as a case of speculative sound ethnography, or "acoustemology" of stones, to use Steven Feld's (2017) terminology.

MOULAY BOUCHTA AND THE PRE-RIF REGION IN MOROCCO

Situated 60 kilometers north of Fès in the administrative province of Taounate in northern Morocco, the village of Moulay Bouchta al Khamar is divided into an upper and a lower part. In the upper part, traditional houses surround the mausoleum of Saint Moulay Bouchta (fourteenth century), the village founder and “father of the rain” (Odinot 1932). The lower part of the village was built during the French occupation, including administrative and school buildings concentrated around a large market area. The region belongs to the Pre-Rif area, delimited in the north by the Rif mountain range and by vast fertile plains in the south. The local terrain is somewhat irregular, characterized by soft marly hills interspersed with large sandstone and limestone formations. Mount Amergou is the highest of these formations, overlooking the village of Moulay Bouchta. The annual variations in temperature and rainfall can be quite extreme, ranging from 5°C with abundant rainfalls in the winter to 40°C with extended dry periods in the summer. The landscape changes accordingly, alternating between lush green vegetation during the wet months and ochre tones from May to October. The impact of water and wind erosion on the landscape is visible, with abrupt changes and fractures in the topography revealing the complex geological configuration of the Rif area. Historically and culturally, the region is part of the *Jbala* land, a territory of related Berber tribes who were Arabized since the seventh century, sharing a common “mountain Arabic” dialect (Aumeeruddy-Thomas et al. 2017). The local economy is based on a fragile combination of crops, tree plantations, and livestock (Medkouri and Zerkaoui 2018), with a significant percentage of olive oil production.

DOMESTICATION PROCESSES IN THE RIF REGION

While the Rif region historically has received less attention from researchers than the Atlas and Sous regions, there is now renewed interest in the area's remarkable agro-biodiversity. For decades, the politics of agrarian modernization and modern development have marginalized local environmental know-how as a result of the French and Spanish colonizers' rule in the 1950s,







which was further intensified by the Moroccan authorities after independence (Medkouri and Zerkaoui 2018). Recent studies in ethnobotany, ecology, anthropology, and linguistics have highlighted the diversity of wild and domestic plant and animal species in the region, the significance of vernacular agrarian knowledge and practices, as well as the richness in rural vocabulary for designating species and agrarian spaces. Aumeeruddy-Thomas, Caubet, Hmimsa and Angeles (2017) argue that almond, olive, and fig trees have *agency* in the domestication process between humans and their environment. Trees mediate between humans, their own representations, and sense of history, as well as between humans and “supranatural forces,” thus ensuring reciprocal exchanges. The very notion of “domestication” is currently under scrutiny in the field of biology and anthropology. Stépanoff and Vigne (2018) contend that domestication cannot be described as “a homogenous reality,” but as “a variety of ongoing interconnected biological and social transformations which extend through a continuum of interactions between control and autonomy.” Humans are not enough to create and maintain a “domesticatory link;” “non-human agencies” are also needed, of the environment as well as of plants and animals. Anthropocentric models of domestication become increasingly contested, and new models describe humans not only as agents, but also as *objects* of domestication. As genetic, biological, and cultural evidence suggests, humans are made by their environment as they interact with it. Consequently, “domestication entails co-domestication” (Anderson 2018) as a bi- or multilateral process, in the sense that it never grants total control to one side over the other.

A STORY OF SOUND, AURALITY, AND ECOLOGY

In this chapter, I examine the ways sound and listening participate in co-domestication processes between people and their environment in Moulay Bouchta. Since it is hardly possible to attend to people’s listening through direct observation, I rely on a series of experiments in stone sounding carried out in collaboration with the artist Abdeljalil Saouli. Stones are ubiquitous in the landscape of Moulay Bouchta and serve as the primary building material in vernacular houses. Local building practices are themselves part of bidirectional processes of domestication, in which stones have a certain agency.

Abdeljalil Saouli himself relied on such practices in order to build his own house, and stones have been companions in his life since his childhood, as we will see. Sounding stones with him gave me a sense of an affective connection to stones, and of the role of listening in this relationship. Abdeljalil Saouli recognizes a particular *affect* in stones, which also characterizes their sound as a distinct category of *stonesound*. Listening and sounding is primarily a modality of entering into a relationship with the world through his art practice and daily life. Through conscious appropriation of local sound practices and knowledge, combined with modern scientific concepts, his aesthetic practice is an expression of *sonic pluralism*. Although it is perhaps problematic to generalize Saouli's particular sonic discourse to the whole population of Moulay Bouchta and beyond in Morocco, it does, however, pertain to a local history of sound and listening. The story Abdeljalil Saouli tells through listening to and sounding stones informs a particular narrative on postcolonial aurality, which is at odds with prevalent discourses on sonic modernity. Because this story is deeply entangled with the coloniality of knowledge, it is also a story of resistance, motivated by aspirations of self-definition shared by many people in Morocco and North Africa. This story indirectly questions the hegemony of white Western aurality in sound studies and sound art, including my own; it also informs a decolonial dialogue on posthumanism, contributing thus to a pluralist perspective on aurality and ecology.

RESEARCHING IN MOULAY BOUCHTA WITH ABDELJALIL SAOULI

I visited Abdeljalil Saouli for the first time at his home in Moulay Bouchta in July 2017. Born in 1984, he graduated from the National Institute of Fine Arts in Tetouan (INBA) in 2012. He made a name for himself as part of a new generation of artists in Morocco and participated in several individual and group exhibitions in the country and abroad. He worked with art galleries and received commissions for sculptural works in public spaces. Yet, unsatisfied with his situation as a freelance artist in Tetouan, Abdeljalil Saouli decided to relocate to Moulay Bouchta. He built a house on a family-owned land plot with direct access to the natural materials needed for his sculptural practice. During my repeated stays at Abdeljalil Saouli's place,



Abdeljalil Saouli and his house in Moulay Bouchta, 2018.

I was able to admire his artworks displayed in the house and its surroundings. Made of wood, clay, metal, grass and paper paste, earth, or polyester, the artworks had a strong and almost animate presence. The house itself was impressive, built with the help of villagers and family members using mostly natural materials such as stone, earth, and wood.

In September 2018, Abdeljalil Saouli invited me, together with the architect Carlos Pérez Marín, to embark on a new collaborative project combining research, art practice, sound, and architecture. Saouli's proposed working theme was *la maison*, which translates from French into English both as "house" and "home". He had started exploring this theme in his art practice through sketches, architecture models, and material assemblages informed by local building techniques. We spent about ten days researching vernacular architecture and building techniques, attentive to the ways local constructions were particularly well adapted to the steep and uneven topography of the region and to the environmental conditions in general. We also visited local saint sanctuaries and several houses in the neighborhood, studying their architecture and conversing with their owners. As we wanted to include sound as well in our research, we made a series of experiments in stone *sounding*. I interpret these experiments in this chapter as a material and affective form of engagement with sound. The video *STONESOUND* (Aubry and Saouli 2019)¹ is an outcome of our collaborative research. It documents a stone sounding experiment, layered with text fragments from our conversations. The work was presented for the first time in Moulay

¹ The video can be accessed via the following link: <https://arbor.bfh.ch/18258/3/st.mp4>



Interior views of Abdeljalil Saouli's house, Moulay Bouchta, 2018.



Bouchta in March 2019 during the *Sakhra Encounters*, a three-day-long public event combining a site-specific exhibition, performances, workshops, and group discussions.²

LIVING WITH STONES

Abdeljalil Saouli's house came to play an important role in our exchanges, not only as accommodation and a work space, but especially as a place where Saouli's vision, sensitivity, and thinking could be physically experienced and discussed. The house itself is an artwork, responding to Saouli's perceived necessity to live in quasi-symbiosis with the rock formation around it. The house sits just below a hilltop accosting the village, overlooked by a 30-meter-high cliff. With its rectangular shape, the building leans directly against this massive rock wall on one side. The opposite wall is covered with large glass windows, allowing for a spectacular view of the valley and the large garden area. Saouli explains his decision to build a house at this location because he used to sometimes sleep there as a kid, seeking refuge in the rocks from a troubled family context. Commenting on his house, he declares:

The stones were here before the architecture, and I was already used to living with them. I believe the stones needed me, they called me to sleep here in the beginning, and I've asked them many questions. I've created a space compatible with myself, based on what I need, how I sleep, how I walk, read, think, shower, eat, see, and sense. I was looking for stability and balance. In order to keep a steady

² The *Sakhra Encounters* is an artist-run initiative by Abdeljalil Saouli, Gilles Aubry, and Carlos Pérez Marín, which took place in March 2018. A documentation is accessible via the following link: <http://radioappartement22.com/?s=sakhra>

temperature in the space, I've created this 'box' and looked for materials that can live next to stones. I've used olive tree wood to build the walls. I've consolidated them with a mix of earth and straw and I've modeled the whole thing. I needed to create a space for, with, and on stones, an architectural space that includes stones as living objects.³

The house's building materials are commonly found in Jbala villages. Vernacular architecture in the region uses "simple, pre-industrial building techniques and tools" (González Sancho 2017). Complex problems are solved by breaking them into a chain of more simple ones. These techniques turn natural materials like earth, wood, and stone into efficient building elements. The lower sections of the walls are made of stones, isolating the house from humidity and ground water. Adobe bricks are used for the upper parts and finished with a protective mortar layer (*tahnika*). Vernacular houses are functional in all aspects regarding building, volume, and materials. They usually show little variations in typology over time and mirror a farming lifestyle.

The adaptive capacity of Jbala architecture is one of its defining characteristics, as it rarely aspires to radically modify the environment. Large stone blocks become part of the house's walls, rather than being cut up or displaced. Local houses seem literally imbricated in the mountains, making it difficult to clearly distinguish between the built and the natural environment. White mortar coating further complicates this distinction, often covering surfaces where built and non-built elements intersect, accentuating the impression of continuity between them. Frequent maintenance

³ The declarations by Abdeljalil Saouli reproduced in this chapter stem from our conversations in French between September 2018 and March 2019. All English translations by the author.



Vernacular architecture in Moulay Bouchta, 2018.

is needed because natural materials tend to deteriorate under the effect of wind, erosion, humidity, and temperature changes. Vernacular houses thus appear like living entities, breathing with the climate, evolving with the environmental conditions, and growing in size together with the family. While concrete has become more frequent in new constructions, it necessitates a special permit by the local authorities. This brings a number of complications because this permit can only be granted upon presenting an official land property title. Many families do not possess such titles, as land was often passed on from one generation to the next without administrative procedures. As a consequence, people have to engage in lengthy and costly processes for legalizing their property titles. Sometimes, people told me, they manage to circumvent these procedures through corruption.

Hoffman (2002) describes the perpetuation of local knowledge and its transformation under the effects of modernization as a "syncretic process of innovation." This relation predates globalization in Moroccan rural societies and continues to operate through the contemporary production of "rural modernity." By drawing from an expanded repertoire of external influences, vernacular building amounts to a form of architectural pluralism. Pluralism is expressed in the combination of traditional and industrial materials; it is equally manifested in the interactions between the local collective modes of land management and the regulations imposed by the state administration. Rural modernity is therefore not merely a reproduction of ancestral practices, but a more dynamic process of innovation and adaptation. Abdeljalil Saouli's house reproduces some of the

principles of local vernacular architecture, especially in terms of building materials, techniques, and adaptation to the environment. It also differs from local practices on aspects such as proportions, functionality, and aesthetics. By returning to his hometown to design a space compatible with his needs, Saouli engaged in a reflexive process about his life and art practice. As the following lines attest, this reflection touches on deeper existential and ontological questions:

I ask myself such questions ... why am I here? Why stones?
Why not elsewhere? But it depends. I really feel comfortable
here. I also search in matter, in earth. In the Qur'an, they
say we are born from earth. The Earth for me is an ensemble
of all the materials of this planet. I am matter too. This means
that my own matter and the one of stones are close. Physically,
stone is stagnating matter. Stone is the matter that gives
me more breath. Crossing a mountain is hard, but there's
breath. The body has to move more, to work more, and becomes
more alive. It gets a lot of breath. When you walk on stones,
you walk on more risks, as you may fall if you're not
concentrating. Risk means that you have to be in balance,
it's a study of the relationship between your own weight
and the space.

These words are striking because they rely on a metaphysical discourse in order to establish connections between matter (stones, earth), being, and embodiment, as well as natural and spiritual forces. Abdeljalil Saouli refers to the scholarly Arabo-Islamic tradition, in particular to the notion of *tawhid*—the idea that body and soul form a continuous whole (Dieste 2013). His descriptions also point to Al-Antaki's "Galenic anatomy," which compares "man to elements of the physical world, air, water, fire, and earth" (Amster 2013). Physiological transformation is produced by temperature and humidity, while reason, memory, and sense perception are motivated by mechanical powers: "natural power" directs the beating of the heart, "animal power" moves the body, and "psychological power" draws from the sensory organs. Saouli is not an Islamic scholar, but a contemporary artist whose education also includes natural sciences. As such, he is well aware of modern scientific discourses on matter, body, life, and sound.

Epistemological pluralism, for Saouli, is therefore essentially a poetic strategy constitutive of his art practice. This approach informs his creative work with materials, manually and conceptually, including the design of his house. His descriptions rely on precise observations and constitute a precious source of information. I have attempted to cross-check this information with other sources whenever possible during my visits in Moulay Bouchta. Our exchanges revealed elements for a locally situated material sound theory, albeit a poetic and personal one.

SOUNDING STONES

My repeated stays at Abdeljalil Saouli's house in Moulay Bouchta gave me a sense of living with stones. I wanted to focus more specifically on listening as a research practice in our collaboration, and Saouli agreed to a series of joint experiments in stone sounding. Our approach started as I began beating the stone wall inside his house with a metallic object. "Did you really find the sound of stone in the recording you just did?" he asked, and I replied: "I don't know yet, I find it interesting to sound stones by beating them." Then he added: "You should hit a stone with another stone in order to keep the stone sound. Not with metal. We're going to try this out." So we did; and made a series of experiments whose goal was not entirely clear to us initially.

Because stones rarely emit sound, our approach mostly relied on basic sounding techniques. "Sounding," as Stefan Helmreich (2016) suggests—in the proper sense of "measuring the depth of something"—is appropriate for investigating things not yet known, things whose limits are not clear, or whose boundaries may be obscured. By sounding stones through beating, Abdeljalil Saouli and I engaged in a close sonic investigation of the materiality of stones, inquiring about their matter, hardness, weight, and inner structure in an attempt to ask them "many questions" in Saouli's own words. In doing so we were also able to dwell at the unclear borders of abstract terms like *matter, stone, sound, life, the human, the self*, and their complex entanglements. We carried out four experiments during my visit in September 2018, which we documented and later reflected in our conversations. These experiments took place at three different locations and lasted for about 30 to 60 minutes each.

EXPERIMENT 1
(3 September 2018, 4 p.m.,
Mount Amergou)

We took a long walk at the top of Mount Amergou overlooking the village, where I made recordings by inserting my microphone in stones carved by water erosion. These cavities acted as natural resonators and filters for the ambient sounds. They made for abstract wind recordings, with differences in sound colors between them, according to the size and shape of each cavity. Distant voices of kids playing in the valley are also audible on the recordings, along with cars, birds, and other animals. During the same session Abdeljalil Saouli played with stones by rubbing them against each other. Overall, this experiment was an interesting first step in our collaboration, showing differences between our respective approaches to sound and ecological voices. I was searching for unusual listening points with my microphone, approaching sound in terms of resonance, soundscape, and as a series of short, later comparable recordings. The results were quite predictable, with some nuances between the takes. Saouli conversely focused on the tactile and textural qualities of stones and other things, actively sounding them and pointing to particular landmarks.

EXPERIMENT 2
(4 September 2018, 6:30 p.m.,
Moulay Bouchta)

For the second experiment, Abdeljalil Saouli suggested to record a “sound wall,” as he called it, by tapping with a small stone on each of the stones



Gilles Aubry and Abdeljalil Saouli
on Mount Amergou, 2018.

of a wall bordering his own plot of land. The wall was about 30 meters long and made of limestone rocks layered on top of each other without cement. He started at one end of the wall, tapping each stone two to four times, slowly moving along the wall while I was recording. It took us about 50 minutes to reach the other end, stopping at times for additional comments. Despite its simplicity, this experiment turned out to be pleasantly surprising for both of us; firstly because we shared a listening experience, and secondly for the interesting conversation it triggered. Saouli's soft beating on the limestone rocks produced a rich variety of sounds with subtle and endless variations in pitch, resonance, density, and texture. After about fifteen minutes, our listening had reached an intense level of concentration, floating freely between stone sounds, background sounds, and something more interior to ourselves. The wall itself was the score for this experiment, guiding our progression and helping our concentration. The soundscape around us was quite vivid when we started shortly before dusk. We could hear donkeys, sheep, birds, the voices of kids playing, and someone hammering at a distance. The scene quietened as the light diminished, with crickets progressively blending in, soon followed by the barking of distant farm dogs. Sounding stones reminded Saouli of his experience of breaking stones while building his house, leading to more comments on stones and sound in general. Here is an excerpt of the conversation between Abdeljalil Saouli (AS) and myself, Gilles Aubry (GA):

AS: We've finished the wall!

GA: Did you build this wall?

AS: Yes, and I built it again with sound now, wow! With sound one can build a wall quickly, but when you have to move all these stones in reality, it takes much longer. I built this wall a first time, and now I've drawn it again with sound.

GA: I was trying to anticipate the sounds as you were hitting, but what one hears doesn't always correspond with what one sees.

AS: The sound difference between the various stone types and sizes is very rich. I built this wall initially in order to stabilize the ground at the foot of the hill, but I didn't know I would listen to it one day through a microphone!

GA: We could also hear someone hitting something in the background at some point.

AS: Yes, there was someone who, like me, was telling a story through

hitting stones; it's a way of speaking through stones. (Starts hitting stones again.) Through the sound you can hear a void inside, you can feel the sound entering the stone to create an echo. Through that you understand if there's a void or not. Here there's a void, a bit, a bit more ... You can also feel the vibration of the stone when you hit it. Listen to the difference with wood. (He hits it.). And here's concrete, but we don't need to hear that. Oh, Bouchta (Saouli's uncle) just came back home. When one breaks stones, one needs to hit first in order to find the cracks. Like this, I talk to the stone, I speak with it. It's not a hit, it's a demand to the stone, so that it tells me how to work. It tells me about its weight, its fragility, it's a whole sound analysis of the stone by the ear as a working method. If there's a crack, then it's possible to insert the chisel; you understand where to break it. There's also a method for breaking stones with fire. You heat the stone for a long time and then you throw water on it, which creates cracks.

GA: Did you break stones to build your house?

AS: Here we had to break large stones, there was a four-to-five-ton-heavy rock over there. We used five different hammers to break it, one 6 kg chisel, another one of 10 kg, and a 20 kg crowbar.

GA: It sounds like a fight with the stone, how does the body react?

AS: Breaking stones is like praying, you need an intense concentration, otherwise there might be bad consequences, as the risks are high. I don't work alone, but with an assistant. You have to be aware that there



Stone wall used for experiment 2, Moulay Bouchta, 2018.

are other hands near the chisel. You're throwing a heavy weight and you need to be precise, or you'll stop quickly. That's why I'm saying it's like praying because you need to be clean and focused. You can feel gravity in the contact between a stone and a human.

GA: It vibrates too ...

AS: Yes, I become a thermometer of the stone through the gesture of hitting it. I can feel if it's about to break, or if I need to hit more, if there's heat left. Many specific words and expressions about such things exist in the stone cutting profession. I started breaking stones for building two and a half years ago. There's always a weird paradox in breaking something in order to build something else. You can also feel the connection between stones when building with them, adjusting them in order to create a straight line. You can feel their weight as you slide them in search of the point of equilibrium. The sound changes as you slide stones on top of each other, as the weight is displaced. When you insert small rocks between the stones, their sound also changes. When someone hits a stone at a distance, you can hear if it's about to break or not. There's a whole dialogue between the stone and me.

GA: Do you use stones in your art practice?

AS: I've worked a lot with stones during my studies in fine arts, not so much by breaking them, but rather through rubbing them and other processes of alteration.

GA: What we just did was like a performance.

AS: Yes, we've sounded differences between the stones, and at the same time I've constructed the wall again through sounding.

EXPERIMENTS 3 & 4

(5 September 2018, 11 a.m. and 5 p.m., Moulay Bouchta,)

The third and fourth experiments took place at the hilltop overlooking Abdeljalil Saouli's house, a karstic area covered with large limestone blocks. Carved by water erosion, the rocks look as if they have been placed on top of each other by a giant hand, leaving empty spaces between them. Their surfaces are irregular and contain many cracks and interstices, resulting in significant differences in mass and density between blocks of a similar size. We explored a zone of about 50 by 50 meters, sounding rocks by hitting

them as we were progressing without following a systematic plan. Saouli used the flat of his hand for the third experiment, which lasted about thirty minutes. Later on that day we returned to the same place for a fourth experiment using a rock for beating stones. We made a video using a GoPro camera attached to Saouli's forehead. He was very familiar with the terrain, progressing quickly between the stones, while I was moving slower after him with the microphone. Other sounds in the background also attracted our attention during the experiments, with cicadas dominating during the day and more voices from the village later at dusk, including the call for prayer from mosques across the valley.

The results of these last two experiments were quite surprising because of the physical and structural complexity of the karst rock formation we were exploring. While I initially expected little difference between the stone sounds, our approach revealed a remarkable variety of pitch, resonance, density, and texture, clearly audible in the soundtrack of our *STONESOUND* video. Following Saouli's swift movements between the rocks was an experience in its own right and significant of the playful and performative character of our approach. I was obviously less comfortable moving my body in this environment than he was, and at times slightly anxious that some of the rocks could fall as we were climbing or hitting them. Experiments 3 and 4 became thus a kind of auscultation of the internal complexity of karst rocks and their interconnections, producing an impression of relative fragility and hollowness of the entire mountain. In other words, we sounded the effects of water erosion and geological time on limestone. These experiments became a way for us to enter into a particular relationship with the mountain, involving our bodies and senses, ultimately affecting the perception of ourselves and the environment.

RECORDING STONES

Roaming rocky locations, encountering stones in sound, learning about their materiality and affect, experiencing ourselves while doing it—all of that was part of our experiments. The way I attended to sound was certainly very different to Saouli. I spent most of the time listening through my microphone and headphones, and my experience was largely mediated by these technological devices. As an art practice, field recording has more to it than mere



Recording experiment by Gilles Aubry, Mount Amergou, 2018.

sound collecting, or worse, sound “hunting.” What matters especially to me is the performative dimension of field recording, that is a way of *composing* one's own listening while recording, rather than just documenting sounds already present in the environment. This involves moving in, and around, near and distant sound sources and therefore creating a new sound field through a spontaneous choreography. The directional, stereophonic microphone acts simultaneously as a sound magnifier, amplifier, filter, and spatial panner, opening up wide possibilities of playing with my own listening, affect, and sensations. The resulting recordings bear traces of this experience, though arguably abstracted through the several stages of technological sonic transduction. The recording itself is not necessarily an end in the artistic process, but rather a byproduct of listening. Field recording as an art practice is also an important way of questioning the ever-changing relations between the self, the environment, and technology. As Pettman (2017) suggests, new technologies allow for new forms of listening, which in turn afford new forms of being together:

Technologies oblige us to rethink what ‘being together’ even means [...] in a socioeconomic system so efficient in producing alienation and isolation. Who or what counts as a ‘being’? A sonic approach to rapidly changing instances and understandings of intimacy can help us address such vital questions. Expanding the conceptual spectrum of what counts as a voice is one way to better understand—and thus challenge—the technical foundation and legacy of taxonomy (gender, class, race, species).

What does “being together” with stones mean? Do stones count as beings? Do all sounds count as voices (as the Arabic translation of sound, *sawt*, suggests)? Is listening a form of domestication? These were important questions for our experiments. To use Pettman's words, sounding stones became “a way of attuning ourselves to a more radical alterity than our own species.” I did not have Saouli's special connection to stones, however, and stones were not sounding by themselves. My own experience was thus mediated twice in these experiments, by the recording apparatus and by Saouli's sounding and comments.

SOUNDING AND LISTENING AS AURAL CO-DOMESTICATION

What perhaps struck me most during our experiments was the dialogical character of Abdeljalil Saouli's sonic interactions with stones. “There's a whole dialogue between stones and me,” he said on several occasions, also comparing his beating to a “questioning” and to a “demand to the stones,” to which they would respond by “telling me about their weight and fragility.” From these interactions, Saouli learns about the stones and about the possible ways to “work with them” for his building and art-making activities. Sounding is also an “encounter with matter,” and at the same time a “taming” of matter. “The encounter of two matters is your goal,” he declares, “it's a training of matter, a relation between forces, when one matter ‘eats’ the other one, like when you sharpen a knife on a stone for the ritual throat-cutting of an animal.” An important part of Saouli's sonic knowledge of stones is the result of his building activities. He started breaking stones a few years earlier for building his house, having learned from other people working with stones in the village. Saouli had a long experience of listening to stones, even before he started working with them. While the domestication of matter represents an important finality of listening to stones as part of local building techniques, this process always prioritizes reciprocity by taking into account the “reflexive productions of feedback” (Feld 2017). These are the stones' responses to Saouli's “demands” to them, as they sound, vibrate, resonate, heat, resist, hurt, and break eventually.







Sounding and listening appear as an interactive, iterative, and multi-sensory learning process, in which knowledge is accumulated rather than acquired. This auditory learning process can be described as a form of *aural co-domestication*, where people are “made” in return by things and other agents in their surroundings as they interact with them. Relational, iterative knowledge similarly informs practices in silviculture and agriculture in the Jbala region, and this applies to other activities as well (Delplancke and Aumeeruddy-Thomas 2017). Local knowledge aims to produce a “functional model of the world” (Feld 2017), and therefore generally reproduces locally significant ontological dichotomies, such as domestic vs wild, local vs foreign, mundane vs sacred, as well as life vs non-life (Delplancke and Aumeeruddy-Thomas 2017). While these categories apply in principle to sounding and listening, they can be relative in reality. The status of things, like stones and trees, is indeed variable, and often tends to reinforce continuities between the dichotomies mentioned above. In the case of almond trees, Delplancke and Aumeeruddy-Thomas have shown differences in status between trees of the same species, attributed to variable parameters such as water presence, market prices, land ownership, hybridization experiments, sentimental values attached to family trees, and locally recognized forms of “self-expression” of almond trees themselves. Similarly, Simenel, Aderghal, Sabir and Auclair (2016) have described the complex and “polysemic” ways rural communities make use of stone cairns for negotiating the boundaries between symbolic and technocratic space. While stone cairns are used as cadastral markers in state forest management, they are also seen as a saint stopover, as a middle point between the human world (cultivated space) and that of the genies (forest), as a belvedere, and as a ritual space. As a result, the negotiation of ontologies around the cairn generates “hybrid modalities of forest management and, thus, of public policies.” While stones generally have a lower status of recognition than animals and plants, they do, however, participate in the reciprocal domestic link between people and their environment. This relationship surfaces in Abdeljalil Saouli’s comment:

Other people here also share this kind of connection with stones. I’ve spent entire evenings sitting on stones with people; stones are part of the landscape. People know very well the relationship between their own body and stones. Kids are good at throwing stones, they know their environment, the shape and the weight of things.

I conducted a series of interviews with people in Moulay Bouchta in March 2019, including a professional stone breaker and a mason. They were usually quick at explaining that breaking stones was “just a job” for them, if indeed a particularly hard and underpaid job. Like Saouli, however, they often referred to their interactions with stones as a kind of dialogue, interpreting every possible visual and audible sign as a form of expression by the stones themselves. As another example in stone sounding in Moulay Bouchta, I personally witnessed how kids use a special throwing technique that produces a loud, buzzing sound (*var’nen*), which serves to control goats from a distance. Working and playing are part of the aural domestication of stones, which involves attending to their “agency and positionalities” (Feld 2017). As stones demonstrate a specific agency, their “otherness” turns into a “significant otherness.” Meaning thus emerges through aural domestication, as part of a local history of sounding and listening as cohabiting. More observations would be needed in order to demonstrate how the plural and contingent status of sounds and stones may affect communal life, rural identity, or public policy more generally in Moulay Bouchta. The fact that a special permit is required for using concrete in construction, but not for stone, provides one such example, attesting to the “hybrid modality” of administrative land management evoked by Simenel et al. (2016).

PLAYING WITH STONES AND LITHIC AFFECT

Besides building and cohabiting with stones, *playing* is an important dimension of Abdeljalil Saouli’s interactions with stones and other materials. “Working with matter as an artist,” he explains in an interview, “is for me a process comparable to the joyful playing of a kid, who in doing so is discovering the world” (Saouli in Benchrif 2015). In the same article, he declares:

I play a lot in my art practice, with seriousness and concentration. I look, I touch, I manipulate, and ideas follow. The eye discovers, the hand palpates, and the mind enters the game, with the idea of divining the world by transforming it. By touching an object, my hand guides me through the gestures of creating another

object, not necessarily similar, that carries the soul of the first one. It’s a process that I cannot entirely define, between playing and working, in line with a given object and a given environment. Each artwork needs attention and effort to become something that can speak and communicate. I am particularly interested in raw materials, with little or no processing. I observe things in their natural environment and I can guess more or less what they will become later. I don’t re-invent the real, I let it become according to its own law. I intervene at the level of concept and fabrication of the object, in an attempt to reveal the message contained in the things I manipulate.

Whereas playing is frequently part of creative and learning activities in general, it is also a fundamental aspect of the process of “autonomous language acquisition” (Simenel 2017). Simenel observed that the linguistic competences of children in rural Morocco significantly improve when they start taking part in pastoral activities in the forest at the age of seven or eight, outside of their schooling time. In the absence of adults and in the company of older children, they engage in a “linguistic game” consisting of experimenting with vocabulary and syntax, departing from their perception of the diversity of shapes that can be observed in the forest. They continuously *re-invent* names for things and beings they encounter, using “the tools of analogical thinking,” such as metaphor, which consists in experiencing something new in terms of something else.

In many ways, Abdeljalil Saouli’s art practice presents similarities with the “autonomous learning process,” Simenel describes. Transposed into the field of art-making, playing becomes a process of observation and interaction with materials, attentive to their transformation. “Stones change in shape, color, smell, temperature, and weight under the effects of time, light, weather conditions, seasonal cycles, and erosion,” Saouli comments. There is thus a specific affect attached to the ontological category of “stone.” From a naturalist perspective, the stone affect is often conceived in terms of “the inert,” “non-life,” and “death.” In Saouli’s wording, however, lithic affect appears vitalized, closer to “stability,” “stagnation,” and “resonance,”—what “stone” is “searching for,” in other words its *becoming*. All of these terms point toward a possible connection to a slow temporality of being, bringing new affordances for imagination and sensing, as expressed by Saouli:



Artworks by Abdeljalil Saouli.
Top: *Pierre de Rivière*, 2018.
Bottom: *Untitled*, 2019.

When you touch a stone, you can feel the connection between the space and the object. Each stone is its own shape, texture, and color. These material qualities respond precisely with what you need on the level of your imagination of what is touchable. I live together with stones in a very serious, physical way.

THE SOUND OF STONES VS STONESOUND

Sounding stones like we did during our experiments is not a very common thing to do, even for a sound artist. It was not our intention to turn stones into musical instruments, such as lithophones, nor to create musical effects like rhythmical patterns or timbral compositions. Our sounding by tapping was much more a “questioning” of the stones, as Saouli said, a way of knocking at their “ontological door,” or perhaps a kind of artistic auscultation. We did not spend much time on each stone, moving rather quickly from one to the next, as if the comparison between them was more important. Saouli repeatedly commented on what we were hearing and on sound *itself* as a phenomenon:

Sound is energy, it's a weight too. Sound is the sounding weight of matter. When you rub one matter against another, sound is a result of their confrontation.

In Saouli's words, sound appears as a byproduct of material encounters and, as such, retains the characteristics of the material objects from which it originates. As acoustic traces of things, sounds vary according to things themselves. Saouli's sound descriptions pertain to the weight, hardness, hollowness, size, and texture. “It's better to hit a stone with another stone,” he adds, “in order to keep intact the stone sound.” The “stone sound” importantly comes as a category distinct from other materials such as wood or concrete, and, as such, carries with itself the specific *affect* of stones. Thus, it is possible to “reconstruct” a stone wall by sounding it, which Saouli also compares to a “sound drawing” of the wall. There is therefore a direct, analogical connection between things and their sound that is also maintained in the recording.

From my position as a sound artist and researcher, I had to face contradictory feelings resulting from the double mediation of my auditory experience with the sound of stones. On the one hand, my microphone was telling me that stone sounds, like any other sounds, are simply the audible manifestation of material vibrations. On the other, I had a sincere interest in Abdeljalil Saouli's affective story of relating to stones through sound. I found myself confronted with two different material sound concepts: one abstract, autonomous, universal sound concept, and one particular "stonesound" concept, situated and affective. It would be a mistake to simply oppose these two concepts in terms of "modern" vs "traditional." If tactility and analogy predominates in Abdeljalil Saouli's listening, he occasionally also points to the possibility of sound analysis and abstraction:

It's a whole sound analysis of the stone by the ear and the working method. [...] I become a thermometer of the stone through the gesture of hitting it. [...] Through the sound you can hear a void inside, you can feel that the sound entered the stone to create an echo. [...] You can feel gravity in the contact between a stone and a human.

Abdeljalil Saouli has no formal training in acoustics, but he is aware that this field of scientific study of sound exists. He knows that the scientific method relies on technical measurement and analysis, and transposes this methodology into his own embodied working method, where the *body* becomes a measurement tool and the *ear* an instrument for analysis. This method is of course useful for breaking stones and building walls, more than any scientific knowledge about sound. Saouli invited me to join him in a kind of plural sound practice, in which the terms of acoustic science, geology, technology, embodied knowledge, and affect could be re-negotiated in favor of a meaningful co-habitation between people and stones. For Saouli, *stonesound* is the expression of "gravity," both in the sense of *heavy force* and *seriousness*. In gravity, he finds stability, strength, balance, heat, protection, and breath. This is particularly apparent in the sounding of the stone wall in our second experiment. Sounding, cutting, playing, and other forms of interaction with stones become a way of "telling a story" and of "speaking through stones."

Sonic pluralism is a key aspect for making sense of our stone sounding experiments and for describing aural co-domestication processes

in Moulay Bouchta. The "stonesound" concept surfacing in Abdeljalil Saouli's declarations is his way of responding to our artistic questioning of *what the sound of stones might be*. He shows his capacity to compose with various ontologies—analogue, naturalist, relational, artistic, and more. Stones are clearly agentic in creating ontological continuities in the case of his house: between the vernacular and the industrial, the domestic and the wild, the built and the spontaneous, the past and the present. On the level of sound and listening, Saouli's stonesound expresses the continuum between physical vibration and the perceived sense of it, between material ontology and phenomenology, between nature and technology, and between life and non-life. Sonic pluralism, however, is not just about combining multiple sound epistemologies, but more fundamentally about creating socially relevant continuities between them. The hybrid and polysemic status of things therefore needs to be stabilized through a continuous process of negotiation. Negotiation is an important aspect of sonic pluralism, enabled in everyday life by social interactions. Artistic collaboration is a particular form of negotiation, characterized in my exchanges with Saouli by performativity and mutual learning.

STONESOUND AND WHITE AURALITY

As noted previously, my experience in stone sounding was doubly mediated: first through Abdeljalil Saouli's beating and comments, and second through my microphone. I progressively started to *understand* Saouli's particular stonesound concept, but I could not directly *experience* it on my own. When Abdeljalil Saouli asked me "did you really find the sound of stone in the recording you just did?" I perhaps mistook it as a confirmation that we were both searching for *the* sound of stone, as something existing on its own, which we could then study together. As it became clear that Saouli already knew the sound of stones as stonesound, I came to understand that he was probably asking if I had found *my* sound of stone. As Thompson (2017) suggests, searching for "sound-in-itself" has a long history in Western sound art and experimental music, a position she situates in the wider field of "white aurality." As the aural dimension of whiteness, white aurality is part of an oppressive "process of racialization" of sensitivity that produces and

orders spatio-temporal relations, and enhances and limits a body's affective capacities in relation to its surroundings. Although race has never been a topic of discussion between Abdeljalil Saouli and myself, there is no doubt that our respective positions are differently marked in regard to the long colonial history of race and racialization in Morocco. Processes of exclusion from "the white-defined realm of being" were integral to the racial politics of the French protectorate between 1912 and 1956 and are perpetuated up to this day through technocratic state governance, exclusive Western border regimes, and global capitalism. Abdeljalil Saouli's lived experience of "coloredness" certainly bears the traces of this exclusion. As such, this experience is part of the story he and other people in Moulay Bouchta tell by sounding stones and listening.

In his examination of the affordances of technological sound for Black subjectivity, Alexander Weheliye (2005) proposes a different approach to "the sonic," in which he finds an "instance of opacity" in reference to Glissant (1990). Opacity is not enclosure within an impenetrable autarchy, Weheliye notes, but subsistence within an irreducible singularity. Thinking sonically adduces a mode of divining the world that sounds its multitude of opacities without drowning their singularities in the noise of transparency. The sonic opens up possibilities for thinking, hearing, seeing, and apprehending the subject in a number of different arenas, but it is by no way "preconscious," or in "strict opposition to the visual or the language." If white aurality is perhaps characterized by its desire to disappear within "the noise of transparency" while still keeping its privileges, Weheliye's "Black aurality" finds



Stills from *STONESOUND*
by Gilles Aubry and Abdeljalil
Saouli 2019.



an important way of subsisting in sonic opacity. The sonic provides a new analytic framework that does not posit meaning and/or intelligibility as its teleological end point, but rather focuses on "texture" and "interwovenness." Saouli's stonessound is a concept that equally remains intransparent, opaque, and perhaps relatively unintelligible from my point of view, despite our conversations. What matters in the end is that it allows him to create and subsist within it, in all the seriousness of his cohabitation with stones.

What Abdeljalil Saouli's stonessound demands from me, and possibly from other attentive readers, is to attend to one's own "white aurality" in all its historicity, partiality, and privileges. While the history of my socialization as a white European male listener certainly goes back to my early childhood, it is perhaps worth mentioning here my time as a jazz music student in a Swiss music school in the 1990s. I spent years studying jazz saxophone by focusing primarily on Afro-American musical expression; the history of racial segregation and Black emancipation in the US was however clearly not part of that program. Retrospectively, my jazz education appears as a troubling experience in institutionalized white aurality, along the lines of Greg Tate's (2003) "everything but the burden." Since then I have become familiar with countless instances of "white sound" as part of my education and practice in experimental electronic music. Whiteness is integral to the history and culture of serious and avant-garde music in the West; it is also expressed in its "universal" sound terminology, through abstractions such as the "sound object," the "sound signal," the "sound sample," "immersive sound," and the "acousmatic." If field recording is often

reduced to sound hunting, it is paradoxically this very practice that made me aware of sound's sociality. Making durational recordings of Berlin courtyards around 2006 changed my perception of the sound field, from a recording studio to a *social sound field*, bringing me to reflect on my own position as a listening subject. The recordings were then not just music materials, but a set of documents, indeed "ear-opening accounts of human relations" within the city of Berlin (Helmreich 2016). The objectifying and hegemonic character of white aurality became a real concern as I started re-examining colonial sound archives as part of art projects in Germany, France, and India. The question of the "self-invisibilization" of the "modest" white listener (Thompson 2017) became crucial along my engagement with the Moroccan recordings of Paul Bowles (1959), who called himself an "invisible spectator" (see Chapter II).

A DECOLONIAL ECOLOGICAL DIALOGUE

The naturalization of sound into an abstraction that can be recorded and commodified is at the core of the Western understanding of "modern sound" (Thompson 2004). Similarly, the naturalization of nature is currently debated in political ecology. Stone discloses "queer vivacity," Cohen (2015) argues, pointing to the necessity to "re-enchant" Western thought in the name of an ecological project beyond anthropocentricity. Such a move may appear problematic, however. As Schulz (2017) notes in his decolonial reading of "new materialist" philosophies, thinking in terms of more-than-human entanglements might simply replace the idea of an undifferentiated humanity with another abstract universal. Distributing intentionality and responsibility across more-than-human "assemblages" potentially has a depoliticizing effect when doing so from a relatively privileged position. One would be better off starting from one's own standpoint, aware that multiple loci of enunciation coexist and are entangled through the coloniality of knowledge, being, and power.

Sounding stones together with Abdeljalil Saouli was a simple but serious attempt at decolonial sound-ecological dialogue. While Saouli's stonessound remains "opaque" and somehow inaccessible to me, its mere *possibility* informs a pluriversal dialogue on aurality and ecology.

If expressions such as the "human" and "non-human" appear too universal, then we need more concepts such as Saouli's stonessound in order to articulate differently the complex entanglements of subjectivities, abstractions, and agencies. For Weheliye (2005), thinking sonically offers an alternative for apprehending subjectivity. It does so by decentering the logos and meaning—while not entirely discarding them—in order to "divine the world," perhaps rather than defining it. For me, Abdeljalil Saouli's sonic thinking is an invitation to decenter one's sovereign self in order to better attend to one's "opaque" self, by dwelling at the border between sound, knowledge, and coloniality.