9 *Menjor* tools and the artisanal epistemology of making Sowa Rigpa medicines in Spiti

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Abstract In this chapter, we explore material aspects of making Tibetan medicine in the north-western Himalayan region of Spiti, focusing on the artisanal relationship between Sowa Rigpa medical practitioners (amchi) and their tools in their practice of *menjor* (medicine compounding). Approaching amchi and their practices only through language and texts is, we argue, limited and overly anthropocentric. Instead, we ask: What emerges from the interrelation between amchi and their menjor tools, specifically their grinding stones, in terms of their materiality, potency and artisanship? Inspired by the work of Pamela Smith on 'artisanal epistemology' we focus on the intimacy between the practitioner and their tools that develops over time through the sensory engagement of the artisan with the materials worked with. This implies long-term skill development and practice, as well as constant innovation, through which practitioners adapt to changing environments, economic constraints, technologies and the availability of things. How can we learn the artisans' 'material languages' and understand the significance of their tools? How are these tools embedded in amchi Buddhist practices? Drawing on ethnographic examples from Spiti, we argue that menjor tools become 'alive' through the qualities of the materials worked with, as well as being consecrated through ritual practice.

Keywords artisanal epistemology, medicine-making tools, Spiti, Sowa Rigpa (Tibetan Medicine), *menjor* (*sman sbyor*), grinding

Singh, Stuti and Gerke, Barbara: *Menjor* tools and the artisanal epistemology of making Sowa Rigpa medicines in Spiti, in Martin, Emma, Brox, Trine and Lange, Diana (eds): Among Tibetan Materialities. Materials and Material Cultures of Tibet and the Himalayas, Heidelberg: Heidelberg Asian Studies Publishing, 2025, pp. 207–237. https://doi.org/10.11588/hasp.1522.c23985

Introduction

Entering the workspace of an amchi,[1] a practitioner of Tibetan medicine or Sowa Rigpa,[2] in their private practice in the Himalayas, we encounter many different materials used in the compounding of medicines, a process called *menjor* (*sman sbyor*).[3] Amchi engage with tools throughout the process of making, storing and distributing medicines: from grinding tools, sieves, brushes made from Himalayan rabbit or fox legs and paint brushes, to plastic jars and bags and leather and cloth pouches. At the centre of all these tools is the grinding stone, on which substances are ground by hand. Drawing on fieldwork in Spiti, this chapter ethnographically explores grinding stones and some accessory tools as active players in the making of medicines. We approach these tools as 'living archives' (Smith 2004) through which menjor knowledge is transmitted and medicines are made within the larger cosmologies of Buddhist ritual and Sowa Rigpa healing.

Spiti, a 130-kilometre-long valley in the Western Himalayas south of the Ladakh Changthang area, has been minimally studied in terms of Sowa Rigpa due to its remoteness, inaccessibility during long winters and peripheral status in Tibetan medical recognition. Since Florian Besch's doctoral research on the impact of monetization on amchi in Spiti (2006, 2007), only Indian anthropologists Stuti Singh and Mridul Surbhi (this volume) have researched Sowa Rigpa in the region. Our analysis is limited to small-scale cottage industry practitioners who are trained and practice outside the Sowa Rigpa medical institutions currently registered under the Government of India's Ministry of AYUSH

1 We use the non-italicized term amchi (from the Mongolian *em chi*), which by now is a standard anglicized term, like lama or rinpoche.

2 Tibetan medicine refers to the heterogeneous medical traditions of Tibet, practised widely across Himalayan regions in India, Nepal and Bhutan, where it is known as Sowa Rigpa (gso ba rig pa; Science of Healing).

3 In line with the general conventions of this volume, Tibetan terms are transliterated at first mention, following the 'Wylie' system. However, for phoneticized terms, we use spellings that reflect Spiti dialect, which do not always match the spellings of the "THL Simplified Phonetic Transcription of Standard Tibetan" (Germano and Tournadre 2003).

(Blaikie 2016; Kloos 2016).[4] They work in what is often termed 'the periphery' of Sowa Rigpa (Kloos and Pordié 2022), the 'centre' of which has been Lhasa for Tibetans (at least since the seventeenth century). In India, the Sowa Rigpa medical institutions recognized by the Government of India function as the 'centre', since amchi also receive recognition through them.[5] Notwithstanding the rise of the Sowa Rigpa industry (Kloos et al. 2020), amchi artisanship in the rural Himalayas still exists in Lahaul and Spiti, and Ladakh (Besch 2006, 2007; Blaikie 2013; Kloos 2004). However, since Ladakhi amchi were instrumental in gaining recognition of Sowa Rigpa as an 'Indian system of medicine' under AYUSH (Blaikie 2016), they have moved more and more to the 'centre' of Sowa Rigpa in India. In contrast, the Spiti amchi introduced in this chapter have remained at the periphery of this movement because they work in remote high Himalayan rural areas and often grind their medicines, largely without electric tools. In Spiti, there is only one practising female amchi. She does not prepare her own medicines but has them supplied from senior amchi and her mentor. Most male amchi prepare their own medicines at their respective pharmacies.

In Spiti, the grinding stone emerged as the most intimate tool between amchi practitioners and their medicinal materials. The many hours that amchi spend hand-grinding their herbs and minerals fosters an enduring relationship between their bodies and their grinding tools. Throughout our fieldwork, the grinding stone was also the primary tool offered to us to 'try' and engage with menjor. These stones are considered sacred, never stepped on and carefully stored in designated places. Before use, they are purified and consecrated with prayers and mantras.

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4 AYUSH handles the education, research and recognition of several systems of traditional medicine: Ayurveda, Yoga, Unani medicine, Siddha and Sowa Rigpa, and Homeopathy. Sowa Rigpa was officially recognized by AYUSH in 2010.

5 These are the Men-Tsee-Khang in Dharamshala and its Men-Tsee-Khang Sowa Rigpa College and Hospital in Bengaluru, the National Institute of Sowa Rigpa in Leh, the Department of Sowa Rigpa at the Central Institute of Buddhist Studies in Choglamsar, Chakpori Medical Institute in Darjeeling, the Faculty of Sowa Rigpa at the Central Institute of Higher Tibetan Studies in Sarnath and the Faculty of Sowa Rigpa at the Namgyal Institute of Tibetology in Gangtok.

Taking inspiration from and building on the work of Pamela Smith (2004), we explore the 'material languages' of the grinding stone and other menjor tools, that is the ways in which knowledge is expressed in the process of their use. To coherently analyse our ethnographic observations and interpretations, we focus on 'artisanal epistemologies' (Smith 2004), emphasizing how artisans gain knowledge through engaging with the materials of the natural world, evident in specific menjor tools. We pay attention to the 'lived theories' (Smith 2010: 48) emerging from these tools as amchi work with them, and also ask how the tools become an extension or part of a larger theory of the use of materials as potent ingredients in Sowa Rigpa. Which specific Sowa Rigpa theories shape amchi's use of tools in substance processing? Do tools and how they are engaged with alter the properties or potencies of substances?

Artisanal epistemology in Sowa Rigpa contexts

Although a focus on artisanship and materials is new in Sowa Rigpa studies, historians of science have extensively explored the relationship between artisans and their tools and materials. While their research relies on textual sources, amchi offer a living example of artisanal menjor practices that can be studied ethnographically. Theoretically, we are inspired by and contribute new insights to the work of historian of science Pamela Smith, who highlights three points in her writings on artisans in early modern Europe, which we find pertinent in Himalayan Sowa Rigpa contexts for several reasons.[6]

First, in her article on late-medieval and early modern metalworking, Smith (2010) emphasizes that many substances artisans worked with were considered 'alive' and transformable. Artisanal practices were 'neither rote nor random nor untheorized', but 'tied to a kind of lived theory' that was not necessarily 'articulated in words' (Smith 2010: 48). These 'lived theories' of early artisans reveal the underlying principles of their work with materials. Taking the example of making the red pigment vermillion, Smith unearths the vernacular 'science' of matter and meaning, showing how knowledge flowed through the

6 This is also discussed in more detail in forthcoming publications based on the FWF-funded Sowa Rigpa Potent Substances project at the University of Vienna (https://potentsubstances.univie.ac.at/output/ [accessed 27 July 2025]).

interconnections between making things out of and with matter and artisans' engagements 'in life forces and in the relationship of matter to spirit' (48).

Not unlike those vernacular knowledges, Sowa Rigpa theories of the five elements, the three *nyepa* (*nyes pa*)[7] and the eight *nüpa* (*nus pa*; potencies) engage with substances through their qualities. Amchi employ menjor techniques to bring out the potent aspects of substances that then become beneficial and medicinal (*sman*). Nüpa or potency encompasses a substance's general potencies, which refer to sensorial parameters (heavy, oily, cool, blunt, light, coarse, hot and sharp) and are linked to the six tastes (*ro drug*) and the three post-digestive tastes (*zhu rjes gsum*) (Tidwell and Nettles 2019).[8] Amchi consider all of these parameters when manually combining and grinding substances into multi-compound powders, which are sometimes further processed into pills to preserve the nüpa for longer. The materials of the tools also alter nüpa. For example, electric machine grinders are deemed to 'heat' ingredients, thus making their nüpa warmer. Moreover, grinding substances on a consecrated stone while reciting mantras is believed to enhance the overall nüpa of the medicine. Thus, knowing and making are deeply interlinked in artisanal menjor and Buddhist ritual practices.

Second, Smith's descriptions of metalworkers show an intimacy between practitioner and materials through the sensory engagement of the artisan with the material worked with. In the Making and Knowing Project (Smith 2016), Smith reconstructs early recipes with her students. She highlights trial and error and experimentation as a route to skill and practice refinement in the absence of complete textual instructions. Similarly, amchi in Spiti rely significantly on oral transmissions from their teachers, but they also experiment with techniques and tools, adapting to local environments. For example, the flow of river water shapes the surfaces of stones and the sounds of stones underwater reveal signs of a potentially good grinding stone. Finding a good stone requires skills. Some grinding stones are individually carved with additional engravings to enhance grinding techniques,

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7 These are the three key physiological parameters in Sowa Rigpa, embodying to varying degrees the five elements earth, fire, water, wind and space (Tidwell and Nettles 2019).

8 Each of the six tastes is predominated by two of the five elements and shapes the nüpa of each substance (Tidwell and Nettles 2019: 132–3).

revealing further refinement of practice and an intimacy between each amchi and their grinding stone.

Third, Smith explores historical art objects by 'following non-textual materials and processes' (Smith 2004: 7), emphasizing and respecting forms of 'artisanal literacy' (Smith 2004: 8). Amchi are usually literate in Tibetan and have to imbibe medical texts and knowledge through reading, reciting and memorizing (Tidwell 2017). The fundamental Tibetan medical work, the *Four Tantras* or *Gyüzhi* (*rgyud bzhi*), which dates to the twelfth century and earlier, is still partially memorized by Sowa Rigpa students. In this chapter, we explore a different kind of literacy, illustrating how the intimacy amchi create with their tools leads to a form of material or artisanal literacy. For instance, amchi handcraft their menjor tools in creative and individualized ways, passing them on to the next generations as embodied forms of a living archive within which menjor knowledge is embedded. For example, the textual knowledge of the *Four Tantras* can be perceived as being inscribed in an inherited grinding stone, transmitting the lineage of the amchi along with the accumulated blessings of their healing practice.

Pertinent to all three points is Smith's insight that even textual 'imprecisions' can make sense and that we can learn the artisan's 'material language' (2004: 8) by respecting such imprecisions as an enskilment embedded in their ways of making. We explore, for example, how amchi identify the best quality tools for grinding and learn the techniques to work with them, as well as how tools used in the grinding process affect the nüpa of the substances ground together. Before going on to discuss these and other forms of artisanal epistemology in relation to amchi tools and their materiality, we turn first to an introduction of the field sites and our methods.

Field sites and methods

This chapter is based on ethnographic fieldwork by Stuti Singh in the summers of 2022 and 2023 in amchi villages of the Spiti valley near Kaza and in the remote Pin valley southwest of Kaza. Singh collaborated closely with Barbara Gerke throughout the conception, research and writing of this chapter. Gerke visited amchi in Ladakh from July to October in 2018 and in the Dharamshala region annually between 2008 and 2020 and again in April 2023. Together, Gerke and Singh visited Spiti amchi in the Dharamshala region in April 2023. However,

all fieldwork material presented here was collected, recorded, transcribed and translated by Singh.

Our discussions are based on open-ended interviews conducted in English, Tibetan, Hindi and, in some cases, the local Spiti dialect with the assistance of a local interpreter and recorded with the amchi's consent. Each of us engaged in hands-on participation in the grinding process—Gerke in Ladakh and Singh in Spiti—to gain first-hand understanding of menjor techniques. The amchi's artisanal literacy involves a lengthy apprenticeship, surpassing any ethnographic immersion. Our brief but impactful trial-and-error experiences in the field nevertheless provided valuable insights into what artisanal literacy might entail and how it is acquired through sensory engagement with materials and tools.

Spiti as a field site for Sowa Rigpa research

Spiti is surrounded by what are now the western Tibetan areas of the PRC and the Indian regions of Kinnaur, Lahaul, Kullu and Ladakh. This led to its name, Piti, the 'middle land' between India and Tibet along the Silk Route. Spiti is divided into three valleys. Stod Valley stretches from

Figure 9.1 A digitally drawn approximate map of Spiti and the villages where the amchi mentioned in this chapter live. Map by Stuti Singh.

Losar to Shichling, Sham Valley from Mane to Sumdo, and Pin Valley from Attargo to Mud (see Figure 9.1). Pin Valley houses the only Nyingma monastery (Kungri), whereas the rest of Spiti is largely affiliated to the Buddhist Geluk (Dhankhar, Tabo and Kee) and Sakya traditions (Komic). The three valleys are home to around 12,500 people (District Lahaul and Spiti n.d.). During an initial survey in 2022, Singh met fifty amchi while working with the Indian Council of Medical Research. The majority of the data presented here are from Singh's field visit of July 2023, when Pin valley alone had around seventeen practising amchi.[9] The health services provided by these amchi are essential due to the region's isolation. The available biomedical primary health centres and the community health centre in Kaza are insufficient, and patients often travel to Kinnaur, Mandi or Shimla for basic essential biomedical services such as blood tests and X-rays. Moreover, this access to biomedical health care is frequently hampered by bad weather and closed roads.

In Spiti, amchi are also called *amji, ahwa* and *lharje*. They still work within a donation and barter system, although monetary exchanges have increased (Besch 2007). Patients offer food, money or work time, assisting amchi with their agricultural activities—all amchi are also farmers with land sustaining their livelihoods. Usually, amchi hold a high social status in their communities and often belong to *khangjen* (landlord) families who traditionally own land. Earlier, members of a khangjen family would marry into another khangjen family. Singh encountered only one amchi who belonged to a khangjen family but did not possess land.

In the past becoming an amchi was challenging for ordinary individuals, since texts were not easily available and only a few people could afford them. Even if students managed to borrow texts, obtaining raw materials not found in Spiti, such as the three myrobalan fruits, posed financial challenges as they had to be bought from herb markets in lower areas of Himachal Pradesh. Singh interviewed a range of amchi, from novices to seniors with fifty years of experience. All amchi presented here underwent Sowa Rigpa training through a mentor–mentee system and were practising at the village level.

With her long-term and well-established rapport with amchi, Singh was able to stay at some of their homes, record their views and photograph their tools. This allowed her to understand their intimate

9 For additional details on the nine amchi mentioned in this chapter, see Table 9.1 in the appendix.

relations with their tools and texts. She also participated in grinding her own medicines during a personal consultation with Amchi Sonam Dorje in Ka.

The grinding process as the centre of menjor

Amchi in Spiti are skilled artisans. They primarily prepare powders called *chema* (*phye ma*), which they sometimes turn into round handmade pills called *rilbu* (*ril bu*); the latter have a longer shelf life than chema, which last only one month and then begin to lose their fragrance and potency. One of an amchi's central activities is therefore grinding, for which they use specific tools. Our focus here is on stone tools and grinders, and some accessory tools such as brushes, and the intimacy amchi develop with them throughout their life cycle. What is the significance of the material characteristics and lineage of grinding stones, and of their sacredness, cleanliness and purification? And how do amchi experience the strength of a stone, the heat from an electric grinding machine and the quality of a brush?

Materials matter: Sounds, surfaces and strength in the making of grinding stones

In Spiti, Singh observed two traditional grinding tools (Figure 9.2). The nether stone is a flat rock with a rough surface, which is called *mandah*, *mantah* or *mandoh* in the Spiti dialect and *mendo* (*sman rdo*) in Tibetan, meaning 'medicine stone'. The handheld stone tool used to grind substances on the mandah is the muller or pestle, called *dozul* (*rdo sho*). These variously sized round river stones are chiselled on one side to create a rough surface for grinding. Stones serve as versatile tools across the Tibetan and Himalayan world, not only in menjor, but also in the kitchen to grind spices, in art to grind pigments and in construction for pounding mud and polishing floors (see, for example, Grothmann 2011).

The material characteristics of rocks used for making a mandah are important for amchi since they affect the grinding process. Singh found that when amchi were sourcing rocks from their surroundings, they paid particular attention to their sound, surfaces and potential strength. These material nuances have particular effects on menjor practices and processes. Following Smith, we view these methods of identifying an appropriate rock for making a mandah as a form of

Figure 9.2 Mandah and dozul at the pharmacy of Amchi Lobsang Gyatuk and Amchi Sunil Bodh in Poh, 2023. The rabbit leg at the bottom right is used as a brush. Photograph by Stuti Singh.

artisanal literacy. In *The Body of the Artisan* (2004), Smith describes how artisans engage with materials through hands-on techniques and sensory engagement with their natural surroundings rather than acquiring knowledge solely through reading and writing. Under their teacher's guidance, an amchi will find a suitable rock and carve it into mandah. They directly engage with materials in nature, exploring and understanding them through their senses—evaluating sounds, observing exposure to flowing water, sensing potential rough or smooth surfaces—and accordingly carve them into suitable menjor tools. This can be illustrated through some specific examples.

When an amchi identifies a suitable rock for a mandah in nature, they listen to the sound it produces when struck, using this as an indicator of quality and potency. In Poh village, Amchi Lobsang Gyatuk and Amchi Sunil Bodh were using an inherited mandah (Figure 9.2), which Amchi Lobsang Gyatuk described:

> This particular mandah was prepared in our Sham Valley by acquiring a locally available rock called *rundoh*. The rock used for making the mandah is identified by the sound it produces while giving it a blow with another rock or metal. It should sound like a metal bell.

These amchi had developed a particular sound technique using an additional tool—a rock or a piece of metal—to test whether the potential rock could be made to sound like a metal bell, which they considered a sign of good quality.

A second criterion in the making of a mandah is its surface quality: grinding stones can be made rough or smooth, each with its own advantage. Amchi Chhewang Namgyal from Khar village had a grinding stone that he chiselled, making it rougher in order to make grinding easier (Figure 9.3 a). Most amchi had learned from their mentors how to source and chisel a mandah. Amchi Tsering Tashi from Tangti Gogma carved additional horizontal lines on the surface of his own mandah to further ease the grinding process (Figure 9.3 b). Thus, each amchi experiments and designs his own mandah, implementing his own experience in the process.

Figure 9.3 a) The mandah used by Amchi Chhewang Namgyal, Khar, 2022. b) A mandah carved with horizontal lines shown by Amchi Tsering Tashi in Tangti Gogma, 2022. Photographs by Stuti Singh.

In Kibber, Amchi Chhering Dorje emphasized the smooth surface of his mortar and pestle set, which were brought by his great-grandfather from Tibet where he studied Sowa Rigpa. The mortar is a hollowed-out heavy stone with a very smooth surface (Figure 9.4). The smooth surface supported him in crushing rough substances, such as salt and rough raw materials. It also helped him make finely ground powders after the herbs had been initially ground in a machine or on a mandah. According to his experience, the smooth surface allowed for both very fine grinding of pre-ground materials and pre-grinding of very rough materials. He also used an iron barrel and pounder (Figure 9.5 a), a

Figure 9.4 Amchi Chhering Dorje from Kibber and his grinding mortar and pestle brought by his great-grandfather from Tibet, 2023. Photograph by Stuti Singh.

mandah (one of the oldest tools in his pharmacy) with a dozul, and other accessories (Figure 9.5 b).

In terms of his mandah's material qualities, he shared his knowledge of how he knows whether a rock is strong enough to become a mandah. The strength of a rock occurs naturally and is influenced by the flow of river water that the rock is exposed to. The more water

Figure 9.5 a) An iron barrel and pounder. b) A mandah with a paintbrush, dozul and a few prepared formulas at the pharmacy of Amchi Chhering Dorje, Kibber, 2023. Photographs by Stuti Singh.

flows across the rock, the harder the rock becomes. Determining the hardness of a rock helps amchi choose the right stone—one that does not require re-carving every year. Thus, the strength of the stone is assessed by whether it needs repeated re-carving to maintain its rough and chiselled surface over long periods of grinding. Amchi Chhering Dorje explained:

> My mandah [Figure 9.5 b] was made here in Spiti. The particular rock is found under the water source. The rock should have been under the flowing stream of water for a long time, only then can it be used. This kind of rock is very strong. We have to carve its surface to facilitate the process of grinding. The carving stays for a very long time on the kind of rock that we have. If the stone has less hardness, a practitioner will have to re-carve the rock lines every year.

We have shown that amchi from different valleys source their grinding stones from different sites, including rivers and rock mines. The qualities of flowing water, the rock's hardness and its sounds, and the additional lines carved into it constitute the materiality of a mandah. Considering the rock merely as a 'material' would be limiting because a stone is continuously evolving and generated through the substances surrounding it. Its materiality, defined by Tim Ingold (2007: 1) as processual and relational properties, is significant in amchi artisanship.

Since only a specific rock with a certain amount of strength can become a mandah, its quality, assessed by its sounds, surface and exposure to running water, becomes alive and relational. These attributes (sound, surface, strength) intensify during the grinding process, discussed next.

Grinding as a process

The shared grinding experiences of Spiti amchi illustrate what Smith would call artisanal literacy, which is non-textual. Observing amchis' grinding methods and tool handling allows us to understand their material language, defined by Smith (2001: 76) as an intimate relationship with materials and the manipulation of materials. Spiti amchi are quite exceptional in their literacy in reading and writing Tibetan, despite primarily speaking Hindi and various Spiti dialects. But while they understand Sowa Rigpa texts and use classical formula texts for compounding medicines,[10] their menjor craft possesses its own language embedded in tools and emerging from oral transmission of medicine-making.

With increased experience, amchi become swift in their movements during the grinding process. They know how to efficiently grind ingredients of different textures. While grinding may look easy, these skills require years of training until they become ingrained in the artisans' body. Smith (2004: 6) argues that for artisans in Early Modern Europe, 'experience and the production of things were bound up with their own bodies'. Similarly, we can see that among amchi the stones shape the hand of the artisan, and the artisan's body shapes the form of the stone. Neither should be viewed as a separate entity in the process of grinding and making medicines. The amchi's body is part of the material process of menjor, with each practitioner having unique grinding movements resulting in embodied knowledge.

There is a significant amount of unwritten menjor knowledge passed on orally that emphasizes the importance of students watching and copying their teachers through a prolonged process of observation, imitation and repetition. This aligns with Tim Ingold's perspective on making: 'Making, in other words *is* copying; it is not the realization of a design that has been copied. … Whatever variations may be introduced in the process lie in the dynamics of the making, not in errors of

10 See Gerke 2018 for an analysis of classical Tibetan medical formulas.

Figure 9.6 a) Iron barrel and pounder; b) Amchi Lobzang Tanzin with his mandah in Mane Gogma. 2023. Photographs by Stuti Singh.

transmission' (Ingold 2000: 372). Each amchi has to find and develop their own grinding technique. For example, Amchi Lobzang Tanzin (Figure 9.6 b) explained that his technique depended on the pressure applied to his wrist and the way he thrust down the pounder on the ingredients:

> I have been grinding medicines for ten years. Sometimes, I grind four to five formulas in a day. When my father taught me grinding on a mandah, he said that I have to apply pressure on my wrist while grinding with a dozul. The pressure should be applied both ways, outward and inward. While grinding, first grind the items for some time, then sieve them, then grind them again. This should be repeated until you obtain a fine powder. First, I struggled thrusting down the pounder [Figure 9.6 a] at a right angle. Now I can do it even if I am blindfolded. Now I can keep the barrel between my legs; I do not have to hold it with my hands. Now, it has become my habit.

Through a long process of observation, imitation and repetition, the apprentice transforms into an expert. Amchi Sunil Bodh compared the grinding performed by an expert with that of an apprentice trying to develop his skills.

> Most raw materials are ground by *meme* [grandfather] as he is well versed with the grinding techniques. I grind the raw materials in the manual machine, and he grinds them over the mandah. Sometimes I try to do it but, when I do, I create a mess with my amateur moves on the mandah which throws raw materials here and there. When meme does it, he controls his movements in such a way that he does not lose any substances. Meme is very careful about not wasting materials while grinding.

The terms of his comparison gain in significance when the precarious economy of amchi and the preciousness of raw materials are taken into consideration. Expertise is defined in relation to 'not wasting materials', which offers us insight into the value amchi attribute to their raw *materia medica* substances and how this shapes their close and careful relationship with materials.

Thus far we have explored grinding stones and related skills to show the intimate relationship amchi develop with their tools and how their skills and the materiality of tools merge in the process. Amchi also acknowledged that grinding affects the nüpa of substances due to elemental interactions between materials. In the following, we discuss different grinding tools and their effect on the nüpa of medicine.

Grinding skills, tools and their effects on nüpa

Amchi Sonam Dorje referred to a copy of the menjor text *Jewel Necklace of Immortality* (*'chi med nor bu'i phreng ba*) to select the substances for one formula. He placed all ingredients onto the mandah without weighing them (Figure 9.7 a), explaining that the main ingredient should be four times the amount of all additional ingredients. Then, he ground up his medicines and brushed them together with a fox leg (Figure 9.7 b).[11]

11 Fox and rabbit legs were commonly used as brushes before plastic brushes became available. We saw them in both Spiti and Ladakh.

Figure 9.7 a) Amchi Sonam Dorje from Ka grinds all ingredients of one formula together on his mandah, 2022. b) Amchi Sonam Dorje uses a fox leg to brush the ground-up medicine, 2022. Photographs by Stuti Singh.

While Amchi Sonam Dorje was grinding, it appeared to Singh as if the dozul was dancing over the mandah. He handed the dozul to Singh for her to try grinding herself. She initially presumed that the grinding stone was lightweight. However, holding it, she soon realized its heaviness. One surface was convex, the other plain and rough. Both were used: the convex surface for pounding the materials into smaller pieces and the plain surface for grinding. Operating under the assumption that a heavy stone would require more pressure, Singh's first attempt resulted in the materials bouncing off the mandah. She realized that it was not only friction between the stones that was grinding the materials, but also the immense strength applied to the stone along with her wrist movements. Developing such skilled moves, as explained by Amchi Sonam Dorje, would clearly demand years of practice and imitation: 'This only looks easy; it actually requires intense muscular strength that I project on the grinding stone. The skill comes after many years of grinding medicines.' Moreover, some amchi consider the act of grinding as having a significant effect on the substances and their potency or nüpa. Amchi Sonam Dorje talked about his own approach: 'I prefer the mandah for grinding as it does not affect the nüpa of the formula, whereas the heat generated by electric machines increases the heat of the formula, which also spoils the taste of the medicine.'

While acknowledging the superior fragrance, taste and potency of hand-ground substances, some Spiti amchi opted for machines to ease

Figure 9.8 The electric grinding machine of Amchi Chhering Dorje, Kibber, 2023. Photograph by Stuti Singh.

their workload. For example, Amchi Nawang Tsering from Kibber, who occasionally employed an electric grinder, also thought that it increased the heat of the formula, warming the nüpa of the medicine. While observing medicine-making in Dharamshala, he noticed that freshly machine-ground medicines felt warm, which he thought affected their nüpa, which also became more 'warming'. Amchi Chhering Dorje (Figure 9.4) inherited most of his tools but bought an electric grinder (Figure 9.8) in 2017 which he used when he had no time to hand grind medicines. Nevertheless, he underscored the importance of hand-grinding as a way to enhance the nüpa of his medicines when interacting with patients.

The nüpa-enhancing power of hand-grinding became evident during Singh's visit in July 2023. While attending to patients, Amchi Chhering Dorje took some medicinal powder (previously ground with his machine) from a steel container and re-ground it on his mandah. He said: 'This increases the nüpa of the medicine. It is good to grind the formula once more on the mandah before giving it to the patient. It is like adding a blessing.' He also explained: 'The lineage tools hold a lot of strength and power, which I believe contributes to the nüpa of the medicine.' After a few minutes of grinding, he packed the powder in a sheet of paper and handed it to the patient with instructions on how to take it. Here, integrating the process of grinding directly into a doctor–patient consultation setting intensified the potency of the medicines. This made us reflect on how the materiality of the mandah becomes even more relational in a situation where the amchi, his lineage, the nüpa of the substances and his patients all come together in the act of grinding, generating blessings.

Some amchi opt for a manual grinding machine as a compromise, aiming to retain potency while saving time. Amchi Sunil Bodh and Amchi Lobsang Gyatuk from Poh village purchased a manual iron grinding machine (Figure 9.9). They preferred to avoid electrical grinders as they believed they 'increase the heat of the medicine which results in less efficient medicines'. Amchi Sunil ground grasses and

Figure 9.9
A manual grinding machine at the pharmacy of Amchi Lobsang Gyatuk and Amchi Sunil Bodh in Poh, 2023. Photograph by Stuti Singh.

hard ingredients in a manual grinder before further grinding them on the mandah.

Amchi employ machines to ease their work but acknowledge the importance of manual grinding in preserving the nüpa of the formula. Amchi Mindol Chhering summarized how the mandah produces the most potent and aromatic medicines compared to electric grinding machines. His villagers assisted him in manually grinding medicines, emphasizing that the mandah produces the most potent medicines when compared to modern tools. He said:

> If we use the mandah then we can produce the best quality of medicine; the speed of a grinder burns the aroma. The medicines prepared on the mandah are the most potent. I also have an electric grinder, but I only use it to mix the harder fruits of Indian gooseberry (amla) and myrobalan.

To sum up, amchi carefully distinguished between manual, electric and hand grinding techniques, evaluating each in relation to the substances' nüpa, material characteristics and practical menjor time. These evaluations were also embedded in ideas of purity and cleanliness, collectively shaping the artisanal epistemology that guides amchi menjor practice.

Purity and sacredness

For amchi the grinding stone is more than a functional device; it is also a sacred space where they recite mantras and visualize certain deities, infusing substances with blessings while grinding them. Similar to archaeological findings suggesting a material link to ancestors' lives through stone tools (Harrison 2010: 536), for amchi, the mandah manifests the continuity of lineage and heritage, believed to enhance the nüpa of the medicines. As we shall see, in this process, notions of cleanliness, purity and sacredness merge with understandings of nüpa. Some of these elements became clear during several discussions with Amchi Chhering Dorje in Kibber, who explained:

> When I start to prepare medicine, I begin with worshipping in my temple. Then, I will clean my medicine room. I take out all the containers of the raw materials, then I sit in the centre and chant the

> mantra of the Menla [Medicine Buddha].[12] I also offer a lamp to our village deities. While preparing medicines, I keep chanting mantras. … Tools that we use for medicine making are kept in a clean place as they are something related to our Menla. … [T]hey cannot be placed anywhere. … We cannot disrespect them. I take extra care of my tools because my son will become an amchi in future. He will learn from me how to take care of our tools.

Amchi Chhering Dorje here tells us that the cleanliness of tools is important for amchi, not just in terms of sacredness, ritual practice and potency, but also because these tools are a tangible manifestation of the living archive of medicine making to be passed on to the next generation. Moreover, amchi clean their pharmacy to prevent formula contaminations that could negatively impact patient health. We detect two kinds of 'cleanliness' here, a spiritual purity and a sense of hygiene.

The senior Amchi Nawang Tsering of Kibber believed that the mandah is an embodiment of Sowa Rigpa knowledge and thus should be kept clean. He explained how cleanliness is connected to nüpa:

> First of all, if I do not clean the mandah, I will commit a sin. The knowledge embodied in the Sowa Rigpa scriptures [*Four Tantras*] is consecrated in the mandah. The mandah has read all the words that were passed on by Menla. If it is not clean, then the nüpa of the medicine will decrease.

Singh found many amchi expressing the idea that clean and pure medicines are more effective for patients. But beyond this, the mandah is regarded as an embodiment of Sowa Rigpa knowledge. Not only is cleaning the mandah equivalent to worshipping the Medicine Buddha; the grinding stone itself is considered a material manifestation of all his knowledge. If the mandah is not clean, it is considered a transgression against Menla, impacting the nüpa of the medicines ground on it. Amchi Mindol Chhering from Sagnam related how he combines various purification practices:

> When I have to make medicine then I have to clean the mandah, as well as perform a purification. First, I will wash it with soap

12 Menla (sangs rgyas sman bla) is the (shortened) Tibetan name for the Medicine Buddha.

> properly, then dry it with a cloth. Then, I will perform *sangshu* [fumigation][13] by using *shukpa* [juniper].[14] If it is not available then I will use Potala [Tibetan commercial] incense. I also request Menla: 'Please purify my tools!'

Amchi Mindol Chhering understood the importance of cleaning and cleansing in menjor in terms of both hygiene and spiritual purity. In this regard, soap and incense become important materials for purification. Some amchi prioritized cleaning menjor tools with water over their ritual purification. For example, Amchi Lobzang Tanzin from Mane Gogma emphasized:

> I wrap up the mandah when it is unused. Otherwise, insects and mice will urinate on it. … It can be cleaned by simply washing it. We can use shukpa, but nowadays we can also wash it, then sun dry it. Cleanliness is important. How can I give medicine from an unclean mandah? Then the person will become more ill.

The menjor tools are kept covered when not in use and washed before medicines are prepared on them. Amchi Lobzang Tanzin's approach reflects a concern for potential contamination through unhygienic behaviour, prioritizing the well-being of his patients.

Other amchi pointed to the importance of both spiritual and material aspects of purification. Amchi Sunil Bodh, the grandson of Lobsang Gyatuk, explained the significance of using accessory tools to remove impurities from raw materials and reciting mantras to remove different kinds of impurities:

> In Sowa Rigpa, we consider grinding tools including mandah, dozul and rabbit legs as very important. They are believed to remove all sorts of impurities from raw materials. As you know, raw materials may have all sorts of things which may be considered clean or

13 *Sangshu* (*bsangs shug*) refers to smoke worship during which fragrant substances are burned to produce smoke, which is believed to purify the environment. In Tibetan this practice is usually known as *sang söl* (*bsangs gsol*), but the Spiti dialect utilizes the term for juniper (*shug*).

14 Juniper trees are called *shukpa* (*shug pa*); their branches are burned for purification.

> not. These things will be purified by a mantra while grinding them over mandah.

A rabbit leg is used to brush ground-up powders across the mandah (similar to the fox leg in Figure 9.7 b) and can be used to sweep impure substances (e.g., dust, sticks, little stones, dirt) off the mandah. A dozul can also remove impurities, for example, when it is used for crushing calcite rocks. During cleaning, darker pieces in the calcite are separated from and brushed off the white calcite pieces (Gerke and Van der Valk 2022). However, there are other types of 'unclean things' that necessitate ritual smoke or mantra purification.

In sum, we note that spiritual smoke purification, mantras and concepts of hygiene and cleanliness—both in terms of cleaning the mandah and removing impurities from raw materials—are important to Spiti amchi to varying degrees. Tools, medicinal substances and amchis' ideas about (un)cleanliness converge in these purification processes and in efforts to make clean medicines.

Some amchi also used medicinal leftovers to cleanse the environment. For example, Amchi Chhering Norbu from Sagnam village preserves left-over medicinal substances at his temple, which also serves as the medicine room in his house. He said that nothing should be wasted but can be used for a sangshu (smoke purification) (Figure 9.10). He encouraged his patients not to discard unused formulas, asserting that materials with healing properties can be offered in a sangshu and purify the environment.

Menjor tools endure through generations and pass through cycles of use and disuse. This raises questions about the purification practices associated with these tools. Amchi Chhering Dorje reflected on the ephemeral nature of the sacredness of menjor tools:

> I think when amchi do not practise medicine they do not bear any obligations to keep their tools clean and take appropriate care of them. They are not chanting the Menla mantra near them; therefore, I think it does not affect them much. I take extra care of my tools because my son will become an amchi in future. He will learn from me how to take care of our tools. If he will not continue the tradition, then these tools will be kept somewhere. Gradually, the tools will become useless.

Here, purity and cleanliness obligations, as well as ritual purification, are tied to active Sowa Rigpa practice. Amchi are obliged to clean and

Figure 9.10 Discarded raw materials used during smoke purification rituals by Amchi Chhering Norbu in Sagnam. 2023. Photograph by Stuti Singh.

maintain their menjor tools routinely only when they are actively practising Sowa Rigpa. Upon retirement or cessation of medical practise, an amchi is exempt from these obligations unless passing the tools on to the next generation. This shows that the power and nüpa of the Menla embodied in the mandah, not unlike all the purification practices discussed in this section, are also relational and dependent on a living and continuing practice.

Amchi also use some unique, inherited multipurpose tools during menjor. They are characterized by a material language that is not expressed in writing but through doing and making. For example, Amchi Lobsang Gyatuk inherited some rare animal horns. These were sealed at one end with a wooden cork and at the other end with a piece of cloth (Figure 9.11). He was storing precious raw materials such as amber in them. Such horns are also ground up and used as medicinal ingredients. These horns thus merge the medicinal properties and artisanal qualities of materials. In other words, materials can have various properties that artisans know how to harness for different needs.

Figure 9.11 Inherited animal horns used for storing precious raw materials at the pharmacy of Amchi Lobsang Gyatuk and Amchi Sunil Bodh in Poh, 2023. Photograph by Stuti Singh.

Conclusion

Our ethnographic examples of amchi grinding tools illustrate that materials and meanings both endure and change over time. Tools not only materialize craftsmanship but also lineage and the attendant potency of accumulated amchi knowledge. Every tool is embedded into different techniques and experiences of form and touch, skill and artisanship, and the material knowledge of their users and producers—all in the pursuit of making good medicines. Engaging with Pamela Smith's work on artisanship sharpens our methodological senses, pushing us to become more aware and astute in observing how amchi handle their tools and substances and how this affects their ways of knowing about menjor. At the same time, Sowa Rigpa is a living medical tradition, and our examples are of contemporary knowledge in practice. As ethnographers we were able to meet and talk with amchi and directly observe material aspects of their literacy. This chapter thus contributes a new angle to Smith's ideas on artisanal and material literacy.

As we have seen, amchi imbibe medical knowledge through various forms of literacy, which not only weaves oral and textual knowledge into materials but also attends to the merging of properties of medicinal potency or nüpa with properties of the tools through the materials themselves. Theories of potency, as well as elemental and 'humoral' conceptions of the body and the environment, reveal entanglements of materials and substances imbued with qualities that engage with the natural world in 'pre-enlightenment' ways, and are reflective of broader cosmologies. For amchi, tools are tangible objects that also have material and social agency and affect nüpa and lineage identity. The river stone's transition to a mandah and the grinding of a formula into a patient's prescription are not just linear processes of amchi practice, but a living archive of accumulated knowledge. Amchi bring forth and enhance the nüpa of medicines through continuous engagement with tools, substances and their spiritual practices. Taken together, these activities can be understood as assemblages of artisanal epistemologies. They emerge from long processes of watching, imitating and experimenting, and combine oral, textual and spiritual elements, as well as a deep engagement with materials in the natural world.

The relationship of amchi to their mandah is key to making medicines. It involves acts of purifying and honouring. As we have seen, they considered the mandah as a place where grinding, knowing,

making, praying and purifying all come together to create a potent medicine. The mandah is also a place where textual knowledge of the *Four Tantras* is inscribed and imbibed while grinding. We could almost call the mandah a mnemonic device, similar to the *Four Tantras* (Tidwell 2017), since it has 'read all the words which were passed on by Menla', in the words of Amchi Nawang Tsering of Kibber. As an 'active reader', the mandah emerges as a living archive of both textual and oral knowledge, where materialities coalesce in the act of grinding, thus empowering the amchi to make—and the substances to become—good medicines. Pills are work-intensive but might become forms of long-term storage to carry nüpa across distances to far away patients, while powders directly transfer nüpa through their freshness, are easy to consume, and also require less labour (see Surbhi and Van der Valk, this volume). Here material language emerges as assemblages of menjor techniques and tools to create the optimal and most potent medicine for specific geographical, climatic and economic labour conditions.

Nowadays, amchi in Spiti prefer plastics and steel over leather as materials for storing their substances and medicines to prevent mould and moisture. While they seem pragmatic in adapting plastic containers for storage, they seem less inclined to move from the mandah to an electric grinder. Some amchi use it to save time, but consider it a tool that changes the nüpa, just like the mandah with lineage power. Also, the habit of freshly grinding or re-grinding medicines in front of the patient as nüpa-enhancing is a ritual that emphasizes the doctor–patient relationship. This focus on individualized Sowa Rigpa formula making is still central to amchi practice in Spiti. However, the changing economy, in which increased living expenses make amchi hesitant to enlarge their pharmacies or invest in expensive electric grinders, also plays a role. In closing, we thus note the remarkable ability of amchi to adapt to shifting circumstances, their menjor tools remaining both a constantly evolving living archive and source of continuity for the making of potent medicines in a changing world.

Acknowledgements

The research and writing of this paper were funded by the Austrian Science Fund (FWF project P30804) through the University of Vienna. We thank everyone who helped Singh with travel and accommodation, as well as introductions to and translations for amchi in Spiti.

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References

Besch, N. F. (2006), 'Tibetan Medicine Off the Roads: Modernizing the Work of the Amchi in Spiti', PhD Diss., Faculty of Behavioural and Cultural Studies, University of Heidelberg, Heidelberg.

Besch, N. F. (2007), 'Making a Medical Living: on the Monetisation of Tibetan Medicine in Spiti', in M. Schrempf (ed), *Soundings in Tibetan Medicine.*

Anthropological and Historical Perspectives. PIATS 2003: Tibetan Studies: Proceedings of the Tenth Seminar of the International Association for Tibetan Studies, Oxford, 2003, 155–70, Leiden and Boston: Brill.

Blaikie, C. (2013), 'Currents of Tradition in Sowa Rigpa Pharmacy', *East Asian Science, Technology and Society: An International Journal*, 7 (3): 425–51.

Blaikie, C. (2016), 'Positioning Sowa Rigpa in India: Coalition and Antagonism in the Quest for Recognition', *Medicine Anthropology Theory*, 3 (2): 50–86.

District Lahaul and Spiti (n.d.), 'Population', District Lahaul and Spiti [website], https://hplahaulspiti.nic.in/population/# (accessed 21 August 2023).

Gerke, B. (2018), 'The Signature of Recipes: Authorship, Intertextuality and the Epistemic Genre of Tibetan Formulas', *Revue d'Etudes Tibétaines*, 45: 178–220.

Gerke, B. and Van der Valk, J. (2022), 'Working with Calcite: Potency as a Process' [blog post], Potent Substances in Sowa Rigpa and Buddhist Ritual, 21 December, https://potentsubstances.univie.ac.at/working-with-calcite-potency-as-a-process/ (accessed 31 July 2023).

Germano, D. and N. Tournadre (2003), 'THL Simplified Phonetic Transcription of Standard Tibetan', The Tibetan and Himalayan Library, https://thlib.org/terms/#/translate/tibetan (accessed 4 August 2025).

Grothmann, K. (2011), *Die Arshe: Arbeitslieder aus dem traditionellen tibetischen Bauhandwerk*, Wiesbaden: Harrassowitz.

Harrison, R. (2010), 'Stone Tools', in D. Hicks and M. C. Beaudry (eds), *The Oxford Handbook of Material Culture Studies*, 520–42, Oxford: Oxford University Press.

Ingold, T. (2000), *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*, London: Taylor & Francis.

Ingold, T. (2007), 'Materials against Materiality', *Archaeological Dialogues*, 14 (1): 1–16.

Kloos, S. (2004), *Tibetan Medicine among the Buddhist Dards of Ladakh*, Wiener Studien zur Tibetologie und Buddhismuskunde: Arbeitskreis für Tibetische und Buddhistische Studien Universität Wien.

Kloos, S. (2016), 'The recognition of Sowa Rigpa in India', *Medicine Anthropology Theory*, 3 (2), https://doi.org/10.17157/mat.3.2.351.

Kloos, S., H. Madhavan, T. Tidwell, C. Blaikie and M. Cuomu (2020), 'The Transnational Sowa Rigpa Industry in Asia: New Perspectives on an Emerging Economy', *Social Science and Medicine*, 245: 112617.

Kloos, S. and L. Pordié, eds (2022), *Healing at the Periphery: Ethnographies of Tibetan Medicine in India*, Durham: Duke University Press.

Smith, P. H. (2001), 'Giving Voice to the Hands: The Articulation of Material Literacy in the Sixteenth Century', in J. Trimbur (ed), *Popular Literacy:*

Studies in Cultural Practices and Poetics, 74–93, Pittsburgh: University of Pittsburgh Press.

Smith, P. H. (2004), *The Body of the Artisan: Art and Experience in the Scientific Revolution*, Chicago: University of Chicago Press.

Smith, P. H. (2010), 'Vermilion, Mercury, Blood, and Lizards: Matter and Meaning in Metalworking', in U. Klein and E. Spary (eds), *Materials and Expertise in Early Modern Europe: Between Market and Laboratory*, 29–49, Chicago: University of Chicago Press.

Smith, P. H. (2016), 'Historians in the Laboratory: Reconstruction of Renaissance Art and Technology in the Making and Knowing Project', *Art History*, 39 (2): 210–33.

Tidwell, T. (2017), 'Imbibing the Text, Transforming the Body, Perceiving the Patient: Cultivating Embodied Knowledge for Tibetan Medical Diagnosis,' PhD Diss., James T. Laney School of Graduate Studies of Emory University, Atlanta.

Tidwell, T. and J. Nettles (2019), 'Conceptions of Potency, Purity, and Synergy-by Design: Toward Developing a Sowa Rigpa Medical Theory-based Approach to Pharmaceutical Research', *Himalaya*, 39 (1): 129–49.

Appendix

Table 9.1: Additional notes on the amchi mentioned in this chapter (summarized by Singh)

Table 9.1 Additional notes on the amchi mentioned in this chapter (summarized by Singh)

	Name	Age (in years, in 2023)	Lineage	Village	Valley	Generations known to practice Sowa Rigpa	Mentor (name or relation)	Winter migration site for medical practise	Current disciples (name or relation)
1.	Lobsang Gyatuk	85	Dotta Karbo	Poh	Sham	5	Elder brother	NA	Amchi Sunil Bodh and a student from Australia
2.	Sunil Bodh	41	Dotta Karbo	Poh	Sham	5	Grandfather	NA	NA
3.	Chhewang Namgyal	52	NA	Khar	Pin	NA	Amchi Kun-sang Dorje	Kinnaur	Younger brother
4.	Tsering Tashi	51	NA	Tangti Gogma	Pin	NA	Amchi Chhimed Choden	NA	NA
5.	Chhering Dorje	47	Ahwa	Kibber	Stod	8	Amchi Zotpa	NA	NA
6.	Lobzang Tanzin	38	Shukpachen	Mane Gogma	Sham	2	Father	NA	Elder brother
7.	Sonam Dorje	70	NA	Ka	Pin	NA	Father-in-law	Mandi	Amchi Chhering Norbu
8.	Mindol Chhering	50	NA	Sagnam	Pin	4	Father	Kinnaur	NA
9.	Chhering Norbu	42	NA	Sagnam	Pin	2	Father	NA	NA