

Elisabeth Hsu\*, Franz K. Huber and Caroline S. Weckerle

# Condensing Life Substances within the House: The Rice-Boiling Shuhi of Southwest China

DOI 10.1515/asia-2016-0023

**Abstract:** The Shuhi of Muli County, Sichuan Province, are one of multiple ethnic groups inhabiting the river gorges of the Qinghai-Gansu-Sichuan corridor between the Tibetan plateau and the Chinese lowlands. The Shuhi have grown paddy rice since times immemorial at an unusually high altitude (ca. 2,300 m above sea level). This article aims to explain this conundrum not merely through the ecology (as is common among Tibetan area specialists), but by researching the cultivation and consumption of rice as a historically-evolved cultural practice. According to a recently formulated agro-archaeological hypothesis regarding the macro-region of Eurasia, it is possible to identify two supra-regional culture complexes distinguished by their respective culinary technologies: rice-boiling versus wheat-grinding-and-baking. The hypothesis posits that the fault line between the two supra-regional cultural complexes is precisely along this river gorges corridor. In this article we provide support for this hypothesis arguing that Shuhi ritual and kinship practices have much affinity with those of other rice-boiling peoples in Southeast Asia, whereas certain of their current religious practices are shared with the wheat-grinding Tibetans.

**Keywords:** house, hearth, rice, boiling, culinary technology, Southwest China

The ethnic corridor running from Gansu and Qinghai in the north through Sichuan and Yunnan to Burma in the south is known for its extraordinary diversity of human, plant and animal life. The region is marked by several large river systems, their deep gorges connecting the sub-tropical south to the snow-covered peaks and dry plains of the north. These valleys cut hot and dry

---

**\*Corresponding author: Elisabeth Hsu**, Institute of Social and Cultural Anthropology, University of Oxford, 51/53 Banbury Road, Oxford, OX2 6PE, UK. E-mail: [elisabeth.hsu@anthro.ox.ac.uk](mailto:elisabeth.hsu@anthro.ox.ac.uk)  
**Franz K. Huber**, ETH Zürich, Institute for Environmental Decisions, Sonneggstrasse 33, 8092 Zurich, Switzerland. E-mail: [huber@ethnobot.ch](mailto:huber@ethnobot.ch)  
<http://orcid.org/0000-0002-4632-8939>

**Caroline S. Weckerle**, Institute of Systematic Botany, University of Zürich, Zollikerstrasse 107, 8008 Zürich, Switzerland. E-mail: [caroline.weckerle@systbot.uzh.ch](mailto:caroline.weckerle@systbot.uzh.ch)

between steep mountain ranges, which with heights of 4,000–6,000 m continue to form barriers to foreign invaders. Only the locals know how to navigate the vast network of pathways along forested mountain crests of the ‘tea horse road’. The region has long been a buffer zone between the Chinese and Tibetan empires. It has been subject to the Chinese empire’s civilising project from the East since at least the Eastern Han dynasty (25–220 CE) and has seen the rise and fall of medieval cosmopolitan centres like Dunhuang and Dali in the north and south, respectively.<sup>1</sup> Moreover, it has been exposed to the Tibetan theocracy in the west, particularly since the reign of the fifth Dalai Lama (1642–1682), who brought reformist Gelugpa Tibetan Buddhism to prominence in the region, giving rise to the Muli kingdom as an integral part of the Tibetan theocracy in Lhasa.<sup>2</sup>

Less well known, but central to our argument, is that archaeologists have posited this corridor to mark the fault line between two supra-regional complexes defined by two different culinary technologies: rice-boiling and wheat-grinding.<sup>3</sup> Agro-archaeological research has uncovered shards from clay pots in the Japanese archipelago that have been dated at approximately 18,000 BP, and hence belong among the earliest known pottery worldwide. The assumption is that these pots were used by forest-dwelling hunter-gatherers for boiling nuts, and the argument that ensues is that the hunter-gatherers’ nut-boiling may have led them to their predilection for rice-boiling after East Asia’s agricultural revolution several millennia later. In this scenario, the cultural judgement of taste would have shaped biological development, eventually leading to the cultivation of genetic varieties of sticky glutinous rice found only in East Asia (see introduction).

Rice-boiling technology is thus contrasted with the culinary technology of grinding wheat, which originated after the agricultural revolution in the Middle East. As intimated in the introduction to this *Special Issue*, each of these culinary technologies has been further associated with cultural and religious practices specific to the supra-regional complex of East and Southeast Asia, on the one hand, and the Middle East, northern Africa and Europe, on the other. In particular, people’s aesthetics, quotidian morals and body techniques have been found to correspond to these two contrasting food ways. In the East, grains of rice are put into a pot and boiled into a sticky, coagulating porridge or paste. In the West grains are ground into flour for baking dry breads, which can be held when eaten.

---

<sup>1</sup> Hsu 1998a.

<sup>2</sup> Wellens 2010: 24–62.

<sup>3</sup> e. g. Rowlands/Fuller 2009.

The Shuhi,<sup>4</sup> who have been found to inhabit only Shuiluo Township in Muli County of Sichuan Province, are a people who grow wet rice at the bottom of the Shuiluo river gorge between 2,100 and 2,500 m above sea level,<sup>5</sup> and they have done so longer than living memory. Otherwise, the Shuhi do not appear to differ much from their neighbours, the Gami (who speak a Tibetan dialect), the Premi, the Naxi and the Na (who called themselves ‘Mengguzu’), all of whom speak Tibeto-Burmese languages/dialects and clearly belong among the wheat-grinding peoples.<sup>6</sup> The anomalous agricultural phenomenon of wet rice cultivation by the Shuhi is usually explained in terms of ecology since the climate is dry and hot in the basin of the valley. In a similar vein, the question of why wheat was not cultivated earlier in China’s northern plains and why millet remained the staple of Chinese cultures for so long tends to be answered by according primary importance to ecology as the key determinant of cultural practice.<sup>7</sup> In this article, however, we aim to explain an agricultural anomaly in terms of historically-evolved cultural practice.

The social and medical anthropological literatures on Southeast Asia are well-known for their engagement with questions of personhood and emotion, selfhood and relatedness (e. g. authors in this section). In contrast, ecology has been at the forefront of social anthropological analysis of Tibetan cultures due to the perceived harshness of the terrain. It is prominent in explanations of kinship and marriage preferences, such as polyandry, and has relayed the discussion of emotion into the domains of demonology and medicine. However, some anthropologists have long underlined cultural continuities between the Tibetan highlands and tropical Southeast Asia, and recent descriptions of the Tibetan house/household clearly draw on the Southeast Asianists’ discussions of personhood and kinship.<sup>8</sup>

This article aims to contribute to the debate on the supra-regional culture complexes derived from the culinary technologies of rice-boiling versus

---

4 The Shuhi are also known as Xumi, Shumu or Shimi. This article is best read in tandem with Huber, Weckerle and Hsu (forthcoming).

5 Today, some Naxi along the southern parts of the Shuiluo river and its tributaries also cultivate rice, as well as the Na-speaking Menggu of Shuiluo Township (Weckerle et al., 2005), but we know that the Na on the shores of Lake Lugu did not cultivate rice until the mid-twentieth century (Knödel 1995: 251).

6 The Shuhi language, Shixing, is apparently distinctive; Sun (1990) and Chirkowa (2009) cautiously locate it within the large Sino-Tibetan language family. The Premi are also known as Primi and Pumi, the Na were classified as Mengguzu (Mongolian) in Sichuan and Mosuoren in Yunnan, see e. g. Hsu 1998a.

7 d’Alpoim Guedes et al. 2015.

8 e. g. Fjeld 2007.

wheat-grinding by drawing attention to the social anthropological literatures on the 'living house',<sup>9</sup> the house as heuristic device,<sup>10</sup> the house as an analytic entity for 'hearth-oriented' kinship practices,<sup>11</sup> and critical discussions surrounding what Levi-Strauss called 'house-based societies' in Southeast Asia.<sup>12</sup> While there are overlaps between these literatures, there are also clashes in perspective. For instance, when Janowski spoke of 'rice-based kinship',<sup>13</sup> her focus was on consumption patterns, not on the technologies of food preparation; the hypothesis about the supra-regional culture complexes grounded in different culinary technologies had not yet been formulated. By contrast, research undertaken on techniques for enhancing health, luck, good fortune and vitality within one's homestead<sup>14</sup> has inspired our writing on Shuhi kinship practices. Some of the techniques to contain the capricious luck, fortune, blessings, and other auspicious energies – and to keep them circulating – share characteristics with the techniques for boiling rice. These bodily skills seem to be oriented, in the culinary context of rice-boiling, towards ensuring that the ever-elusive vapours, *qi* or other *mana* forces/substances are contained within the pot (e. g. by putting the lid on, e. g. with a knot, see Remme, this section), and by extension, may well have engendered people's observed predisposition and attentiveness towards containing life substances within the house, homestead or hamlet.

Our focus in this article is on (a) techniques of Shuhi rice cultivation and consumption, (b) specificities of house and hamlet architecture and (c) dispositions observed in daily and annual rituals indicative of so-called 'hearth-oriented' kinship practices as found among many rice-boiling peoples in Southeast Asia. In these rather disparate practices of Shuhi life it was possible to identify in many people a predisposition or predilection for condensing life-giving substances (a) in cooking pots or sticky rice balls, (b) inside villages and hamlets that characteristically were built in clusters, and (c) inside the massive stone structures of the houses that the Shuhi inhabit. We suggest that this widely observed predisposition among the Shuhi aims to prevent the dissipation of ever-elusive life substances, like *mana* or *qi*, which can transform into anything and everything, inclusive of life engendering (a) food substances, e. g. rice, (b) human-cum-animal warmth and (c) the offspring thereby generated.

---

<sup>9</sup> Waterson 1990.

<sup>10</sup> Carsten/Hugh-Jones 1995.

<sup>11</sup> Hsu 1998b; Huber, Weckerle and Hsu (forthcoming).

<sup>12</sup> Sparks/Howell 2003; Janowski/Kerlogue 2007.

<sup>13</sup> Janowski 1995, 2007.

<sup>14</sup> Empson 2011; Da Col 2012.

While our discussion will focus on a few selective ritual and kinship practices that resonate with observations made among those peoples of Southeast Asia who boil rice, two additional influence spheres need to be considered. Currently, the People's Republic of China's state apparatus exerts an undeniable socio-political presence in the valley and brings with it Han language and regulations around property, commerce, taxation, marriage and inheritance, among other legal issues.<sup>15</sup> Historically, the Tibetan theocracy has since the fifth Dalai Lama been the cultural, religious and socio-political centre for all inhabitants of the Shuiluo valley.<sup>16</sup> The Shuhi are thus at not merely at the intersection of culinary-technological influence spheres, but also of socio-political and religious ones.<sup>17</sup>

## 1 Fieldwork in the Shuiluo valley

The first visit to the valley involved a three-week long reconnaissance trip organised by Hsu in 1992. After sighting the valley, which, due to its remoteness was the only large river gorge system that had no road, she built up a project group for undergraduates (*“Projektgruppe Südwest China”*) in 1993–96, with the support of Lorenz Loeffler, professor at the Department of Social Anthropology, University of Zurich. The group members prepared themselves for coordinated fieldwork on the ‘house’,<sup>18</sup> each from a different disciplinary perspective. Thanks to the sustained efforts of Zhang Shiya, professor on Southwest Chinese nationalities' education at the Normal University of Sichuan, they were granted research permission for fieldwork from Beijing. Finally, in 1996, four Swiss students, Weckerle<sup>19</sup> among them, were paired with Chinese students to undertake coordinated fieldwork for three months in the Shuiluo valley.

After completion of her doctorate, Weckerle and her husband Huber visited the valley almost yearly between 2004 and 2011 for a total of more than twelve months of fieldwork, which was made possible through close collaboration with Yang Yongping, professor at the Kunming Institute of Botany, Chinese Academy of Sciences. They also built up a small but vibrant student group in ethnobotany, which made several field trips to the valley and other parts of the region.<sup>20</sup>

---

<sup>15</sup> Huber 2013.

<sup>16</sup> Wellens 2006, 2010.

<sup>17</sup> See Huber, Weckerle and Hsu, forthcoming.

<sup>18</sup> Hsu 1998b.

<sup>19</sup> Weckerle 1997.

<sup>20</sup> Huber et al. 2010, 2015; Staub et al. 2011; Weckerle et al. 2009.

This article thus presents data gathered by a human ecologist and an ethnobotanist, interpreted by a social/medical anthropologist in light of recent studies in the anthropology of material culture, religion and kinship.

## 2 Rice cultivation in the valley

There is a striking ecological aspect of Shuhi settlements. They are all located in the thorny shrub belt about 100–300 m above the Shuiluo river where the topography flattens out briefly, allowing the terraced cultivation of irrigated rice. This dry shrub vegetation is the most bio-diverse in the river gorges.<sup>21</sup> At higher altitudes, it gives way to mixed pine and oak that provide food, fuel, timber and other resources for local use. These cooler surroundings, 300–400 m up from the river,<sup>22</sup> provided optimal terrain for the travel of horse caravans through territory inhabited by the Premi, whose Bar clan constituted the elite of Muli County.<sup>23</sup>

Rice cultivation, which the Shuhi did in summer, depended on the heat and dryness at the bottom of the valley. In winter they grew barley and wheat as secondary crops in the same terraced fields, as did the surrounding inhabitants of the valley in non-terraced fields, complemented by some buckwheat, highland barley and potatoes.<sup>24</sup> Furthermore, all inhabitants of the valley grew maize in summer, the Shuhi included.

Among the Shuhi in the northern parts of the Shuiluo valley rice cultivation and consumption were ritualised activities. Rice was sown in March and grown in nursery fields located within the hamlet or nearby. In Lanman each nursery field was prepared with a bundle of freshly collected plants, including commonly used species for ritual practice (*Pistacia weinmannifolia*, *Cornus oblonga*, and a species of bamboo), to which were added any plants that were then flowering. The Shuhi explained that the flowers were an offering to the rice (Shixing: *shue*). They would collect the plants on the day before and place them on the *tala* behind the hearth overnight. In the early morning they dashed the bushels of plants with fermented barley wine, before placing them in the nursery fields.

There was some variation in this practice. In Xiwa, a settlement further to the north that was previously inhabited mainly by Shuhi and has seen important

---

<sup>21</sup> Salick et al. 1999, 2004.

<sup>22</sup> Weckerle et al. 2006.

<sup>23</sup> Wellens 2010.

<sup>24</sup> Weckerle et al. 2007.

influx by the neighbouring Gami Tibetans more recently,<sup>25</sup> pine twigs but no flowering plants were placed in the rice nursery fields. And in the southernmost Shuhi settlements of Shuiluo Township, namely Liangbao and Mianbang where the Chinese presence was strong, the Shuhi did not place plants in rice paddies or fields of other crops.

The Shuhi also used the species above (*Pistacia*, *Cornus* and bamboo) in autumn after the rice harvest when they grew barley and wheat in the terraced fields. The neighbouring Gami, Premi, Menggu and Naxi would not use these ritual plants in their barley and wheat fields, nor when, on occasion, they grew rice. In the fields used for growing maize no one ever made ritual use of any plants. Shuhi said that there were three old rice varieties but that they used them rarely.<sup>26</sup> These old varieties were bred locally and exchanged between Shuhi families and hamlets only.

Although each house had its own terraced paddy fields, rice cultivation was a highly collaborative practice among the Shuhi. In the middle of May the fields were ploughed with oxen at least twice, once before and once after flooding the paddies. While ploughing was clearly a male task, the women predominantly did the remaining work in the fields. Women would work in large groups when transferring the seedlings from the densely covered nurseries into the fields and again when, two weeks later, the fields were weeded for the first time. The irrigation channels were managed and maintained through cooperation within the hamlet to conduct water at different elevation levels from a side valley to the paddy fields. According to legend, the Shuhi had obtained their irrigation technology from god-like ancestors hundreds of years ago.<sup>27</sup>

When the crops of rice were harvested in October, they were cut, bundled and carried onto the flat house roofs for drying and further processing. For threshing, the rice bundles were smacked against a large stone built into the roof and treated with flails, activities often accompanied by the workers' singing. During windy afternoons, the grains were winnowed by dropping them from a large bamboo tray. If the wind was weak or absent, people would whistle to attract more wind. More recently, hand operated winnowing tools (one per household) have made this task easier.<sup>28</sup>

The Lanman Shuhi celebrated the harvest with a festival that emphasized the hamlet-wide cooperation necessary for the growing of rice. A delegation of

---

25 Büeler 2010.

26 Weckerle et al. 2005.

27 Weckerle et al. 2007.

28 Weckerle et al. 2007.

three to five representatives from different houses visited each house of the hamlet. The formal hosting of these five delegates involved the offering of fermented barley wine (which is a common drink throughout the valley), of transparent distilled alcohol (which was also made of barley, but generally is made of rice in the low lands), and of a culinary delicacy made specifically for this occasion: large, round balls of soft-cooked red rice, not quite as sticky as glutinous rice balls.<sup>29</sup> All Shuhi houses engaged in this exchange of gifts, giving these red rice balls and other foodstuffs as tokens alongside the pig fat commonly exchanged among the Naxi and other peoples in the valley.

### 3 Rice consumption inside the house

Rowlands and Fuller<sup>30</sup> underlined the religious practice of communion with one's ancestors during ritual or daily meals as specific to the rice-boiling peoples of East and Southeast Asia. Unlike the wheat-grinding peoples of Central Asia, who would make offerings to their gods and deities in the distant skies, rice-boiling peoples would invite their ancestors, who were thought to dwell in the rafters of the roof, to partake of the meal.

In *The Living House* Waterson presents ethnographically-rich evidence of a convincing cultural logic for communing with the ancestors during meals taken inside the house. Her monograph was written long before Rowlands and Fuller suggested this practice as characteristic of peoples engaging in rice-boiling technologies. Waterson underlines that the interior of the house in Southeast Asia is typically dark. This darkness is desirable because it is thought to be life engendering. As she observes “the house peak is sometimes lined with buffalo hide to keep out any chink of light”.<sup>31</sup> In some places the steeply slanted roof tops create a dark space nine times the height of the space inhabited by humans; it is high up inside the house, underneath the rafters, that the ancestors dwell. The darkness in the house is also compared to the darkness in the body and the womb.<sup>32</sup> The dark is thus associated with a principle of fertility. It is in the darkness of the house that people eat their

---

<sup>29</sup> Gibson (1995), among others, mentions rice balls made of glutinous rice that can be yellow, black, white or red. They too have ritual use.

<sup>30</sup> Rowlands/Fuller 2009.

<sup>31</sup> Waterson 1990: 34.

<sup>32</sup> Waterson 1990: 34.



meals in communion with their ancestors, and this darkness is experienced not only as protective and nourishing but also as fecund and fertile. The Southeast Asian house is a living house.

The Shuhi houses are typically dark inside. The windows are small and the shutters kept shut. So are the houses of the Gami, Premi, Naxi and Menggu in the Shuiluo valley. The ecological usefulness of these architectural features is undisputable in a region where cold winds blowing from the snow-capped mountains can make it rain almost horizontally. Furthermore, any fieldworker will have experienced how pleasant and relaxing it is to step into the cool darkness of a house that protects one from the blazing sun outside. Other times, the darkness feels palpable, even warming, as occasional flickers from the hot ashes in the hearth provide the only dim light.<sup>33</sup>

Among the Shuhi rice was the daily staple. Women cooked it every day anew. Before ladling out a meal, offerings were made by the hearth (Shixing: *gú*). The hearth was the centre of social life, centrally positioned on the first floor of the house inhabited by humans, with the animals below in the stable and the rooftop above flat and open. In the 1990s and early 2000s the hearth still consisted of an open fire, around which people sat on three sides. Men sat on the right, women on the left, and those of high age and status sat closest to the altar and ornamented wall behind the hearth. Although among the locals the Shuhi alone ate rice as the main staple, the above ‘hearth-oriented’ practices in the Shuhi house were much the same as those of neighbouring peoples.

Wellens, a social anthropologist who spent many years among the Premi in Bustling Township, south of Shuiluo Township, discusses the house with much nuance as a notion that “link[s] together architectural, social and symbolic aspects of a single institution and treat[s] them as being closely related.” More specifically, he says:

The ‘house’ as a principle of social organization cannot be detached from its role in religious practice.... every house constitutes its own sacred space. It enables the residents to establish and maintain relations with their ancestors and deities, as well as among themselves through the practice of rituals... [A] house is “a cosmologically meaningful

---

**33** Having said this, there were houses among the Shuhi and their neighbours in Shuiluo Township where people clearly wished to have a beam of light come through a square hole in the roof, just above the hearth. This was the case particularly during fortnightly prayer meetings led by Buddhist monks. In Ming Chinese houses a flue above the hearth that was generally located in their southwestern corner, was kept open so that the soul of the dead could escape (Hsu, fieldwork in Huizhou, 2009); given as explanation for a pulse indicative of death: “[I]f the Pulse seems like the Drops of Water that fall into a House, through some Crack or little Hole in the Roof” (see Hsu 2001: 195).

structure designed to maintain an efficient relationship with the powers to the outside world".<sup>34</sup> Finally, the 'house' also has magical powers, and provides possibilities for the residents to prosper.<sup>35</sup>

Wellens speaks Premi, Chinese and Tibetan. This enabled him to differentiate between offerings to (1) ancestors (those who had died in the house, not the entire patrilineal family) who were invited to join the inhabitants of the house in eating and drinking; (2) the deities of the mountain, the water divinities, and others; and (3) the 'magical powers' of the house itself. By contrast, none of the co-authors here spoke the local language, which made inquiry into these issues almost impossible. Although we do not argue that, historically, the Premi were rice-boiling peoples, Wellens' careful ethnographic recordings in the Premi house provide important insights regarding the consumption of rice in the Shuhi house, as is evident from what follows:

Weckerle and Huber observed that the woman or man in charge of ladling out the staple would place a spoon of rice on each of the three legs of a tripod placed above the hearth. This parallels Wellens' observation:

Both *hsin-drwe* [Premi word for the iron tripod] and *drwama* [Premi word for a distinctive stone rammed into the earth near the hearth] are the most important loci of worship in Premi houses. Before each meal or before drinking offerings of food or wine, *che-dRö* (lit. 'food for the souls') will be placed on top of the *hsin-drwe*, more specifically on the three places where its feet join the upper ring.<sup>36</sup>

In some houses, furthermore, an elaborate ornamentation referred to as *zhambala* was painted onto the wall above the hearth. Sometimes, the ornament was a relief; in other houses the wall behind the hearth was bare, yet *zhambala* was nevertheless said to be there. Some people spoke in Chinese of the hearth, *tala* and *zhambala* as different entities, and seemed to suggest *tala* was the altar in front of *zhambala*, when they put food offerings on a beautifully carved shelf in front of the ornamentation. Others said they were all the same, adamant that *tala* was *zhambala*. Weckerle and Huber stress that in almost all the fifty Shuhi houses they visited in Shuiluo Township, *zhambala/tala* received offerings. Before a meal, some rice grains, alongside pig fat, butter tea and barley wine, would be offered to *zhambala/tala*. Some people said *zhambala* was present in one of the three stones rammed in the ground by the hearth that formed a tripod, or if the tripod was made of iron, they pointed to a stone by the hearth, which some called *zhambala*. Others said 'it was all

<sup>34</sup> Corlin 1980: 91 on the house among the Tibetans of Gyelthang.

<sup>35</sup> Wellens 2006: 160–161.

<sup>36</sup> Wellens 2006: 154.

the same': offerings to the sacred mountains in the west of the valley called *gongga* (Chinese for the Tibetan *konka* mountain/s) or the sacred local mountain, the water gods (*klu*) and the *zhambala/tala* (Figure 1). Among the Premi, however, Wellens was able to differentiate between different sorts of offerings. Of the *drwama*, the stone by the hearth ('cut from a large stone which comes from a ritually cleansed place in the mountains'<sup>37</sup>), he said,



Figure 1: The hearth and a relief of *zhambala*.

<sup>37</sup> Wellens 2006: 156.

Under the *drwama* is a small cavity where some silver and gold... as well as a few grains of maize, highland barley, wheat and rice are placed. Only these grains can be placed there. This is to assure the future prosperity of the house. People deny that this is an offering to any divinity or ancestors; implying the house, besides being a medium for worshipping ancestors and divinities, also possesses an animistic quality in itself.<sup>38</sup>

Writing of the ornamentation on the wall, referred to as *zhambala*, he writes:

Zambala... is the wealth-granting or wealth-restoring deity of Tibetan Buddhism. [However:] Few of the *zaNbala* [in Premi houses] actually depict this deity and even fewer people understand the origins of their *zaNbala*, but it is quite likely that it started as an altar for worship... (in the hopes that it would bring prosperity to the house), not unlike the practice of putting gold and grain into the *drwama*.<sup>39</sup>

After the word ‘worship’ in the above quotation, Wellens added the four words ‘the deity of wealth’. We have intentionally omitted these four words as they render the sentence ungrammatical, and because Wellen’s comment on ‘gold and grain’ underneath the *drwama* was that these were not offerings to deities but offerings to an ‘animistic quality’ of the house itself, with the capacity to create wealth.

In this context, it is interesting to note that some Shuhi interlocutors likened *zhambala* to a house god or deity of the hearth, while others refuted any affinities to either, nor to the god of fire or the Chinese stove god, although the latter is a god of wealth. They made allusions to gods of wealth in Tibet and China but simultaneously refuted them. Wellens, who recognised Tibetan Buddhist iconography in the ornamentation, astutely noted that it did not actually depict the Tibetan Buddhist Zambala. Rather, a distinctive living aspect of the house – alongside the offerings to ancestors and deities – seemed to be venerated with the offerings of gold and grains (including rice corns) tucked underneath the stone by the hearth, with foodstuffs (inclusive of rice) placed on top of/in front of the *tala/zhambala*.

As Rowlands and Fuller<sup>40</sup> note, wheat-grinding peoples characteristically make offerings on an open platform to deities high up in the sky. Interestingly, the Shuhi did this as well. They made daily offerings (Shixing: *songdong*) to the sacred mountains each morning on the open roof top. Usually they burnt pine or pistachio branches in a special furnace (Shixing: *songguí*) built into the wall surrounding the flat roof and located next to the *lhatse* altar (Shixing: *yazé*). They communicated with the divine surrounding landscape through the ascending

---

<sup>38</sup> Wellens 2006: 156–157. Among the Shuhi, Weckerle and Huber found that grain and gold were also built into the *lhatse* on the rooftop of their houses.

<sup>39</sup> Wellens 2006: 157.

<sup>40</sup> Rowlands/Fuller 2009.

dense, white and pleasantly smelling smoke, the high pitch of a Tibetan conch shell trumpet (Shixing: *hlie sí*) and the mumbling of a prayer in Shixing and Tibetan. Food offerings in the form of barley wine and *tsampa* (ground barley flour) mixed with flowers (*Tagetes erecta*) were spread over the burning branches.

In summary, the growing of rice was ritualised in ways that other cultivation forms were not, and the consumption of rice involved offerings that showed affinity to religious practices found among the rice-boiling peoples in Southeast Asia, such as the making and exchange of red rice balls within Shuhi hamlets after the rice harvest. None of their neighbours did so. Furthermore, like rice-boiling peoples in Southeast Asia, the Shuhi engaged in offerings that invited the ancestors who had died in the house to commune with them in a meal and treated the house as a living principle. This generally happened, as in tropical Southeast Asia, in the darkness of the house. The Shuhi did not differ markedly in this from their neighbours, although we do not claim that their neighbours historically belonged among rice-boiling peoples. Alongside these practices in the house, the Shuhi worshipped the local and distant sacred mountains on an open rooftop in daily morning rituals, *en plein air* much like their neighbours and, according to Rowlands and Fuller, the wheat-grinding Central Asian peoples.

## 4 Keeping life substances within the house and hamlet

The Lanman Shuhi of the last three generations had not only adhered to hamlet endogamous marriages; they also gave the first-born the ritually binding task to stay in the house and care for it.<sup>41</sup> We argue that this kinship practice, which privileged the first-born in a gender-blind way, ensured that houses remain alive by being inhabited.<sup>42</sup> It is 'hearth-oriented' in that it aims to keep the inhabitants – and their fortune, blessings and *qi*-like life substances – in the house.

A further aspect of Shuhi 'house-oriented' kinship practices, is that the houses in their hamlets formed clusters. This applied to hamlets from Xiwa and Jiassa in the north, Lanman and Pingweng in the middle, and Mianbang and Liangbao in the south of Shuiluo Township. Sometimes the houses were built in pairs, not side by side like Premi or Gami houses, but in complementarity, mirroring each other symmetrically. In contrast to the clustered Shuhi hamlet (see Figure 2), Tibetans and Premi built their houses strewn across the landscape.

41 Weckerle 1997.

42 Hsu 1998b; Huber, Weckerle and Hsu (forthcoming).



**Figure 2:** Cluster of houses of one hamlet of Lanman Village.

People live in tight proximity to each other when houses cluster in a hamlet. Some peoples may enjoy such dense habitation and experience it as increasing human warmth and safety, while others prefer spacing out their homesteads. Can this difference in predilection for compact hamlets be explained through an aesthetic cultivated through daily engagements in a specific culinary technology? Perhaps rice-boiling technology instils in people a disposition to cherish a thickening of vital substances in one place, be it rice grains in a cooking pot or human-cum-animal warmth in a hamlet?

Incidentally, village endogamy is a kinship practice valued by many rice-boiling peoples of Southeast Asia.<sup>43</sup> Gibson noted that among the Makassarese in a village of South Sulawesi people preferred village endogamy over exogamy. Shared space was considered crucial to group formation. Thus, any group residing in one locality would ideally merge with the in-marrying group, and rituals were undertaken to transform spouses into ‘siblings’.<sup>44</sup> None of these specific rituals, which could be interpreted as ‘hearth-oriented’, have been recorded among the Shuhi. Nevertheless, the Lanman Shuhi appeared to

<sup>43</sup> e. g. Gibson 1995; Janowski 2007.

<sup>44</sup> Gibson 1995: 131–132.

practice tactics of condensing the energies in the clustered aggregates in which they lived by strengthening the internal ties within the hamlet, rather than by pursuing a strategy of enlarging their sphere of influence through exogamous alliance networks.

By contrast, the Han Chinese as well as most neighbouring Tibeto-Burman peoples in Shuiluo Township valued marriage alliances and exogamy.<sup>45</sup> So-called ‘endogamy’ was regarded as incestuous. Nonetheless, the Lanman Shuhi continued to adhere to hamlet-based endogamous marriages, whereas the Shuhi in Pingweng barely mentioned any village endogamous marriages to the fieldworkers Weckerle and Huber. Given that Pingweng is located very close to the Chinese administrative centre of Shuiluo Township, it is likely that the Pingweng Shuhi were keen to appear ‘civil’, i. e. patrilineal (Table 1).

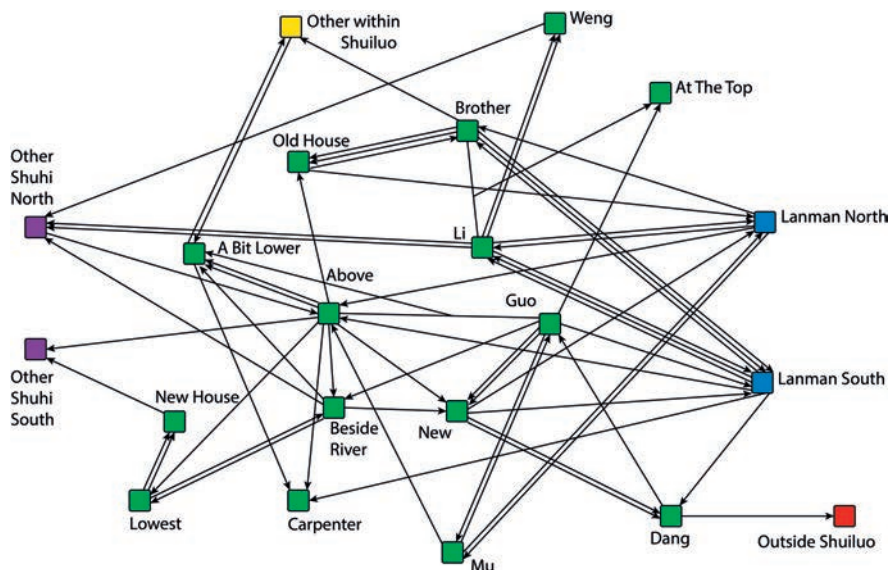
**Table 1:** Marriage details of Lanman (one hamlet) and Pingweng Village.

	Lanman (1 hamlet) (n = 15 houses)	Pingweng (n = 11 houses)
Hamlet endogamy	33 (52 %)	NA
Village endogamy	52 (83 %)	38 (62 %)
Shuhi endogamy	59 (94 %)	38 (62 %)
Shuiluo Township endogamy	62 (98.4 %)	53 (87 %)
Shuiluo Township exogamy	1 (1.6 %)	8 (13 %)
Total marriages	63 (100 %)	61 (100 %)

Endogamy in a hamlet might thus be another kinship practice by which the Lanman Shuhi ensured that the hamlet’s life substances would not dissipate and were anchored in a place. In Lanman the density of the interconnections between houses was impressive. Within the past three generations every house had made hamlet-internal interconnections to other houses through 3–9 marriages. All houses of the whole hamlet were part of this densely-interwoven web of marriage relations. Two subgroups of houses were more tightly interconnected than the others (Subgroup 1 centred around the Li and Brother houses, both with additional strong links to a neighbouring Shuhi hamlet in the south; Subgroup 2 centred around the Above, Guo, New and Beside River houses). A careful study of the diagram in Figure 3 gives the impression that the strategy of most households was to diversify their links within their subgroup in the hamlet. Only a couple of households (New House and Weng) made alliances exclusively to one house within the hamlet. The houses of the ritual specialists

45 Lévi-Strauss 1969 [1949]; Hsu 1998b.





**Figure 3:** Marriage network of three generations in Lanman (one hamlet). Green indicates houses of the same hamlet of Lanman, blue are the other hamlets of Lanman, purple are other Shuhi hamlets in Shuiluo Township, yellow are settlements of other ethnic groups within and red outside Shuiluo. Arrows indicate the direction of marriage.

called *dumbu* were Old House, Lowest and Above, but none of their marriage alliances stood out. Above, the house that had the most marriage relations to other houses, was that of the Village Head, who was not a *dumbu*.

So, both house-oriented practices for keeping it alive through ritually binding the first-born to continue to reside in the house and hamlet endogamy that multiplies mutual interdependency and effects a clustering of energies, keep the human beings of one place within that place. However, hearth-oriented Shuhi kinship practices are changing in response to both the Han Chinese administrative and legal system and the rapid political economic changes happening alongside a vibrant Tibetan religious revival.

## 5 Stone seats for the ancestors

Finally, the Lanman Shuhi adhered to a ritualised kinship practice they were not observed to share with anyone else in the Shuiluo valley. On lunar November 9, an annual festivity would be held which mostly involved



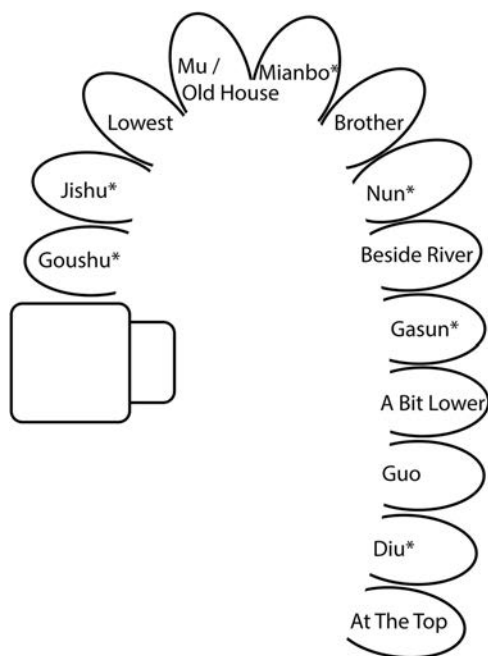
women, cattle and children. They walked up the hill for about quarter of an hour and congregated on a flattened place on which an unusual stone structure with thirteen stone seats had been built in a semi-circle around a *lhatse* altar and furnace (Figure 3). All women and children knew the names of each stone seat. Women would lead the representative cattle of their house to the stone seat with the name corresponding to their house (as could be verified in eight out of thirteen cases). Some had to share a seat, as no new seats had been added recently and the cattle of new houses with new names would be led to a seat named after an old house. They began by using colourful threads that the women had spun and died from goat's wool to connect the seats to the *lhatse*. This tying together of seats and *lhatse* is reminiscent of other tying practices for strengthening interconnections between people of a place.<sup>46</sup> After decorating the *lhatse* with the usual species of plants used in rituals (namely bushels of bamboo and branches of *Cornus oblonga* and *Pistacia weinmannifolia*), they covered it with prayer flags, on which had been printed horses, goats and cows. When asked what this ritual was for, people said it was for the auspicious development of their cattle.

As already indicated, prayer flags, pine, bamboo, *Cornus oblonga* and *Pistacia weinmannifolia* twigs were used for decorating the *lhatse*. Offerings followed: walnuts, cracked open, together with mandarins and roasted barley were laid out on the seats. Meanwhile, some whole nuts were placed in the dark, hollow spaces underneath the 'seats'. When the decoration of the *lhatse* and the seats was ready, *tsampa*-barley flour and barley wine, fruits (mandarins on the one occasion observed in 2010) and nuts, together with pine twigs, were burnt in the furnace. Then, the Tibetan conch shell was blown by the women, who said it was to venerate the *gongga* mountains, among other deities (Figures 4 and 5).

The structure and layout of the stone seats bring to mind Waterson's description of "whole villages of origin-houses which are left uninhabited, save for occasions when the descendants gather there to perform rituals". Waterson reports on her own visit to one such village (in Lembata) high up on the slopes of a volcano, while the community itself lived on the seashore: "[E]ach clan has its origin-house in the upper village, where they come together for an annual ceremony at the end of the dry season [...]". Waterson then cites Traube who worked among the Mambai of East Timor and noted that origin villages varied in size and scale. While some were "imposing stone-walled structures", others were "little more than fenced enclosures built around small stone altars, and rather ramshackle cult houses", but origin villages were all

---

46 Mentioned also by Herrmans and Iida, both in this section.



**Figure 4:** Thirteen stone seats, each named after a house, built on a terrace above Lanman in the shape of a semi-circle surrounding a *lhatse*. \* indicates stone seats that could not be assigned to an existing housename.

“practically deserted” throughout the year. Among the Kedang almost every village had an “old village” which was taken as its origin-site and which was clearly associated with the ancestors: “Clans have their origin-houses there, used as ritual sites, and there are also stone altars, a village temple, and miniature houses [...] which represent the houses of female ancestors”.<sup>47</sup> The work of Robert Barnes among the Kedang, Maurice Bloch among the Merina and Roy Ellen among the Nuaulu of Seram is then cited to sketch out this unusual phenomenon. The Shuhi were not very verbal about the named stone seats or about ancestors. Nevertheless, these carefully arranged, otherwise deserted stone seats, which they visited once a year, bring to mind the “origin villages” of other peoples in insular Southeast Asia.

This congregation of animal and human offspring among ancestral stone seats, named after houses whose names emphasized place over blood line,

<sup>47</sup> Waterson 1990: 44–45.



**Figure 5:** Thirteen stone seats on a terrace above Lanman built in a semi-circle around a *lhatse*, each named after a house.

alongside Shuhi rice-cultivation and the Lanman Shuhi's preference for hamlet endogamy, suggests a distinctive aesthetics and disposition. Might these practices enact a principle of the culinary technology of rice boiling, which is to ensure that the ever-elusive life substances like *qi* or *mana* are kept in a place?

## 6 Discussion

The multi-ethnic Qinghai-Gansu-Sichuan corridor along the Tibetan-Chinese borderlands roughly coincides with a hypothesized fault line between two supra-regional complexes of cooking technologies.<sup>48</sup> As explained in the introduction to this section, these culinary technologies of rice-boiling versus wheat-grinding may have instilled in people different dispositions towards the preservation and multiplication of life substances.

This article addressed Shuhi wet rice cultivation as a conundrum in so far as it is practiced at 2,100–2,500 m above sea level in an area where

---

<sup>48</sup> e. g. Rowlands/Fuller 2009.

the neighbouring peoples mostly grow barley, wheat and buckwheat alongside the maize that is grown by all. We aimed to explain this agricultural phenomenon by foregrounding technological aspects of culture over ecology. First, we noted that rice cultivation among the Shuhi involved ritually marked practices differing markedly from those of the neighbouring peoples. We also discussed the daily consumption of rice, and found that Shuhi make offerings at and/or to the hearth to invite the ancestors to partake of the meal and to venerate a living principle of the house, as do other rice-boiling peoples of Southeast Asia. Furthermore, the Shuhi honour deities of the place in close proximity and far away, inside the darkness of the house and also on the open rooftop, as do their wheat-grinding neighbours. We noted a uniformity regarding religious food offerings among the different peoples in the Shuiluo valley not found in the agricultural domain of rice cultivation (and animal husbandry).

Second, hamlet-endogamous kinship practices were interpreted to represent an effort to keep life substances in the hamlet and avoid the dissipation of human warmth from that place. This argument is based on detailed and robust data regarding marriages during the last three generations in the main hamlet, Lanman, and was elicited by Huber and Weckerle in fieldwork spells spanning over a decade. Furthermore, the first-born, regardless of gender, would continue to inhabit the house, and with this 'hearth-oriented' kinship practice ensure that life substances stay within the house.

Finally, the Shuhi undertook an annual ritual practice that had striking similarity to the annual ceremonies held in insular Southeast Asia in so-called origin villages made of stone houses. Similar practices were not observed among any of the neighbouring peoples.

Overall, we were struck by a range of attitudes, techniques, skills and procedures among the Shuhi that resonate well with others described among rice-boiling peoples of Southeast Asia. Simultaneously, we drew attention to variation and, particularly, to practices that have affinity with those of the wheat-grinding Central Asian peoples, primarily in the domain of religion. By detailing how the Shuhi engage in practices from both of the two supra-regional complexes associated with different culinary technologies, this article provides support for the hypothesised fault line along the Qinghai-Gansu-Sichuan corridor.

Finally, in response to the question of what life substances the Shuhi were handling in their own terms, we have to admit to our linguistic limitations. However, we hope to have demonstrated that by focusing on skilled practice of the everyday and paying attention to bodily predispositions and techniques, we could throw light on people's evolved cultural knowledge about biological

flourishing. In her perceptive ethnography on harnessing good fortune among Mongolian herders, Empson speaks of an ‘analogy’ to horticulture; she did not think of archaeological and technological developments across macro-regions. Yet in view of Rowlands and Fuller’s hypothesis, her ‘analogy’ may no longer be a decontextualised analogy. Rather, her observations may result from there being genealogical links to the life-substance-containing culinary technologies and hearth-oriented kinship practices found among horticulturalists of tropical and sub-tropical Southeast Asia. After all, the Buriats live not far from said fault line; but more on this elsewhere.

**Acknowledgments:** We would like to thank our colleagues, collaborators and mentors for their sustained support of the different phases of research on which this article draws. Special thanks go to Professor Yang Yongping of the Kunming Institute of Botany, Chinese Academy of Sciences and to Mr. Chen Yulin, Kunming. Finally, we thank Dr. Eileen Walsh, the two anonymous reviewers, the English native speaker editor and the journal editor Rafael Suter.

**Funding:** Weckerle and Huber obtained funding from several funding bodies, including the Swiss National Foundation PBZHA-104354.

## References

- Aijmer, Göran (2004): *New Year Celebrations in Central China in Late Imperial Times*. Hongkong: Chinese University Press.
- Büeler, Franziska (2010): *Ethnobotanical Study among Ethnic Groups in the Shuiluo Valley, Southwest China: Local Knowledge of Ritual Plant Use*. Unpublished Master Thesis in Ethnobotany. Zürich: University of Zürich.
- Carsten, Janet / Hugh-Jones, Stephen (eds.) (1995): *About the House: Lévi-Strauss and Beyond*. Cambridge: Cambridge University Press.
- Chard, Robert L. (1995): “Rituals and Scriptures of the Stove God”. In: *Ritual and Scripture in Chinese Popular Religion: Five Studies*. Edited by David Johnson. Berkeley: Institute of East Asian Studies Publications, 3–54.
- Chirkova, Katia (2009): “Shixing, a Sino-Tibetan Language of South-West China: A Grammatical Sketch with Two Appended Texts”. *Linguistics of the Tibeto-Burman Area* 32.1: 1–90.
- Corlin, Claes (1980): “The Symbolism of the House in rGyal-thang”. In: *Tibetan Studies in Honour of Hugh Richardson. Proceedings of the Ninth Seminar of the International Association of Tibetan Studies in Oxford, 1979*. Edited by Martin Brauen and Per Kvaerne. Warminster: Aris and Phillips Ltd.
- Da Col, Giovanni (2012): “Introduction: Natural Philosophies of Fortune—Luck, Vitality, and Uncontrolled Relatedness”. *Social Analysis* 56.1: 1–23.

- d'Alpoim Guedes, Jade A. et al. (2015): "Early Evidence for the Use of Wheat and Barley as Staple Crops on the Margins of the Tibetan Plateau." *Proceedings of the National Academy of Sciences* 112.18: 5625–5630.
- Empson, Rebecca M. (2011): *Harnessing Fortune: Personhood, Memory and Place in Mongolia*. Oxford: Oxford University Press.
- Fjeld, Heidi E. (2007): *The Rise of the Polyandrous House: Marriage, Kinship and Social Mobility in Rural Tsang, Tibet*. PhD Dissertation. Department of Anthropology, University of Oslo.
- Gibson, Thomas (1995): "Having Your House and Eating It: Houses and Siblings in Ara, South Sulawesi". In: *About the House: Lévi-Strauss and Beyond*. Edited by Janet Carsten and Stephen Hugh-Jones. Cambridge: Cambridge University Press, 129–148.
- Hsu, Elisabeth (1998a): "Introduction". In: *Naxi and Moso Ethnography: Kin, Rites, Pictographs*. Edited by Michael Oppitz and Elisabeth Hsu. Zürich: Völkerkundemuseum, 9–19.
- Hsu, Elisabeth (1998b): "Moso and Naxi: The House". In: *Naxi and Moso Ethnography: Kin, Rites, Pictographs*. Edited by Michael Oppitz and Elisabeth Hsu. Zürich: Völkerkundemuseum, 47–80.
- Hsu, Elisabeth (2001): "Figuratively Speaking of 'Danger of Death' in Chinese Pulse Diagnostics". In: *Historical Aspects of Unconventional Medicine: Approaches, Concepts, Case Studies*. Edited by Robert Jütte, Motzi Eklöf and Marie C. Nelson. Sheffield: European Association for the History of Medicine and Health, 193–210.
- Huber, Franz K. (2013). *What Defines Sustainability? An Ecological and Societal Analysis of Wild Medicinal and Mushroom Collection with Respect to Livelihood Strategies in the Hengduan Mountains, Southwest China*. PhD Thesis, ETH Zürich.
- Huber, Franz K. et al. (2010): "Livelihood and Conservation Aspects of Non-Wood Forest Product Collection in the Shaxi Valley, Southwest China". *Economic Botany* 64: 189–204.
- Huber, Franz K. et al. (2015): "Livelihood Strategies in Shaxi, Southwest China: Conceptualizing Mountain–Valley Interactions as a Human–Environment". *Sustainability* 7: 3204–3229.
- Janowski, Monica (1995): "The Hearth-Group, the Conjugal Couple and the Symbolism of the Rice Meal Among the Kelabit of Sarawak". In: *About the House: Lévi-Strauss and Beyond*. Edited by Janet Carsten and Stephen Hugh-Jones. Cambridge: Cambridge University Press, 84–104.
- Janowski, Monica (2007): "Introduction. Feeding the Right Food: The Flow of Life and the Construction of Kinship in Southeast Asia". In: *Kinship and Food in Southeast Asia* (NIAS Studies in Asian Topics; 38). Edited by Monica Janowski and Fiona Kerlogue. Copenhagen: Nordic Institute of Asian Studies, 1–23.
- Janowski, Monica / Kerlogue, Fiona (eds.) (2007): *Kinship and Food in Southeast Asia* (NIAS studies in Asian Topics; 38). Copenhagen: Nordic Institute of Asian Studies, 1–23.
- Knödel, Susanne (1995): *Die Matrilinearen Mosuo von Yongning. Eine Quellenkritische Auswertung Moderner Chinesischer Ethnographien*. Münster: LIT Verlag.
- Lévi-Strauss, Claude (1969 [1949]): *The Elementary Structures of Kinship*. Boston: Beacon Press.
- Rowlands, Mike / Fuller, Dorian Q. (2009): "Moudre ou faire bouillir?". *Techniques & Culture* 52–53:120–147.
- Salick, Jan et al. (1999): "Whence Useful Plants? A Direct Relationship Between Biodiversity and Useful Plants Among the Dusun of Mt. Kinabalu". *Biodiversity and Conservation* 8: 797–818.
- Salick, Jan et al. (2004): "Bridging Scales and Epistemologies: Linking Local Knowledge and Global Science in Multi-Scale Assessments". *Millennium Ecosystem Assessment*, Alexandria, Egypt, March 17–20, 1–12.

- Sparks, Stephen / Howell, Signe (eds.) (2003): *The House in Southeast Asia*. London: Routledge.
- Staub, Peter O. / Geck, Matthias S. / Weckerle, Caroline S. (2011): "Incense and Ritual Plant Use in Southwest China: A Case Study among the Bai in Shaxi". *Journal of Ethnobiology and Ethnomedicine* 7: 43.
- Sun, Hongkai (1990): "Languages of the Ethnic Corridor in Western Sichuan". Translated by Jackson T.-S. Sun. *Linguistics of the Tibeto-Burman Area* 13.1: 1–31.
- Van Spengen, Willem (2002): "Frontier History of Southern Kham: Banditry and War In the Multi-Ethnic Fringe Lands of Chatring, Mili, and Gyelthang, 1890-1940". In: *Khams Pa Histories: Visions of People, Place and Authority*. Edited by Lawrence Epstein. Leiden, Boston, Köln: Brill, 7–29.
- Waterson, Roxana (1990): *The Living House: An Anthropology of Architecture in South-East Asia*. Singapore: Oxford University Press.
- Weckerle, Caroline S. (1997): *Der Gebrauch von Pflanzen im Alltag der Nanman-Shimi*. Unpublished Diploma Thesis in Ethnobotany. Zürich: Institute of Plant Taxonomy, University of Zürich.
- Weckerle, Caroline S. et al. (2007): "Cultivated Plants and Subsistence Agriculture among the Lanman-Xumu in the Shuiluo Valley (Sichuan, SW China)". *Journal of Economic and Taxonomic Botany* 31.2: 303–313.
- Weckerle, Caroline S. et al. (2005). "[The Role of Barley among the Shuhi in the Tibetan Cultural Area of the Eastern Himalayas](#)". *Economic Botany* 59.4: 386–390.
- Weckerle, Caroline S. et al. (2006). "Plant Knowledge of the Shuhi in the Hengduan Mountains, Southwest China". *Economic Botany* 60: 3–23.
- Weckerle, Caroline S. et al. (2009): "Mao's Heritage: Medicinal Plant Knowledge among the Bai in Shaxi, China, at a Crossroads Between Distinct Local and Common Widespread Practice". *Journal of Ethnopharmacology* 123: 213–228.
- Wellens, Koen (2006): *Consecrating the Premi House: Ritual, Community and the State on the Borderlands of East Tibet*. Unpublished doctoral dissertation. Oslo: Faculty of Arts, University of Oslo.
- Wellens, Koen (2010): *Religious Revival in the Tibetan Borderlands: The Premi of Southwest China*. Seattle: University of Washington Press.
- Yang, Fuquan (1998): "The Ssu Life Gods and Their Cults". In: *Naxi and Moso Ethnography: Kin, Rites, Pictographs*. Edited by Michael Oppitz and Elisabeth Hsu. Zürich: Völkerkundemuseum, 189–208.