

SOME NATIVE MEDICINAL PLANTS OF THE WESTERN¹ GURUNG

Broughton Coburn
Kathmandu

Notice has been taken by field workers and villagers alike of the sparing use of and decreased interest in herbal medicines by the Gurungs. It is the purpose of this paper to show that not only did the Gurungs have a rich and systematic herbal tradition in recent history, but also that much of this tradition is unique to only the Gurungs, and is currently practiced or recognized to a greater extent than documented heretofore.

Outside of social interaction, the Gurungs are directly dependant on native and cultivated plants for almost every aspect of their livelihood. Plants are the source of their food, clothing and shelter, but they also play an extensive role in their recreation, decoration, religion and medicine. Further, the climatic and subsequent vegetative diversity

1. Research for this paper was done throughout Syangja and Parbat Districts, and in Kaski District exclusive of the area to the west drained by the Madi River. Special acknowledgement goes to the Department of Medicinal Plants, Thapathali, Kathmandu for botanically classifying many of the collected specimens.

found within a day's walk of a northern Gurung village has made available a large variety of plants, from a sub-tropical habitat typified by bamboo and rice paddy at 1,000 m. through the temperate range to alpine pastures at 4,500 m. Medicinal herbs are collected from all these ecoclines, but those from the higher altitudes are said to be the more powerful.

A list of the Gurungs' medicinal use of cultivated and introduced plants would include over forty more species and cures. This is an interesting area for further research, but many of these have been tested for alkaloids and other possible active agents, and their ethnobotanical study may not open any new areas of the pharmacological research. Many of the medicinal uses of cultivated and introduced species are not unique to the Gurung.

It is also not within the scope of this paper to cover the religious and ritual uses of plants, due to the surprising vastness of material in this area, complicated by the considerable local variation in plants used for specific rituals. Suffice it to say that there are over sixty native species and many cultivated and introduced species which are of symbolic importance in Shamanic, Buddhist, and Hindu ceremonies (*Gitāh*, N. *puja*).¹ The ritual use of medicinal plants which have ceremonial functions are included here however, as this use often reflects on its medicinal value, and vice versa.

1. Transliteration follows the system used by R.L. Turner in this volume. Plant names are listed Roman alphabetically by their Nepali name due to the greater variation and occasional absence of local Gurung names. In cases where there was no known Nepali name, the entry is included under the Gurung name. Plant names specific to other villages were quickly remarked upon by those who knew them, but little explanation was offered for this marked variation.

Wild food plants include another forty species, the hunters and shepherds depending on them for the bulk of their green vegetable consumption when travelling in the high hills (N. *lekh*) away from villages.

Typically, the forest-jungle adjacent to the Gurung village is a veritable natural pharmacy. It has the purported potential to cure almost any affliction affecting the Gurung of any age, and his livestock. "Sure" remedies have been reported for rabies, cholera and epilepsy. Water-buffalo aphrodisiacs, thorn extractors, and systemic leech repellents are examples of Gurung mountain drugs unavailable in a western pharmacopeia which might deserve more pharmacological investigation. Shepherds, hunters, and to a lesser extent firewood and fodder cutters are the most knowledgeable of native plants and their uses. These transhumanists and other hill travellers have transmitted orally much of the current folk and herbal remedy tradition from their antecedents, reinforced by their daily association with a wide variety of plants.

Several shepherds, lamenting the loss of sheep from grazing on poisonous plants (N. *bikh*, Grg. *mekë*), described how they can recognize poison antidote herbs by the lack of any poisonous plants growing in their near vicinity. The efficacy of this potential antidote can be tested by dropping ground pieces of the herb into a vessel of water containing the visible extract of any poisonous plant. If the ground antidote "chases" the poison around in the vessel, it is considered to be effective. One informant said that the "five-fingered" *pāc āule* root is a good medicine for hand injuries because the tubers are shaped like a human hand. Similarly, several plants with milky sap are taken to stimulate lactation. This is a common method used earlier by some peoples for determining the medicinal value of a plant.

by its anthropomorphic characteristics, for which a pharmacopeia, the Doctrine of Signatures, was developed by the physician Paracelsus in the 16th century.

These and other accounts of uses of plants for medicine suggest the existence of an underwritten and ongoing tradition among the Gurung, distinct from Ayurvedic or Tibetan herbal medicine. Neither the Ayurvedic nor the Tibetan medicinal texts cover a number of genera of plants which are used exclusively by the Gurung. It is apparent that the uses of these plants originated empirically with the Gurung and/or were transmitted orally from another tribe.

The most highly regarded medicinal herb doctors were the Gurung *aamji* (Tib. doctor), lamas who had studied under Tibetan folk medicine doctors in Thak Khola or Tibet.¹

Though they were familiar with the clinical use of many species of herbs, they often placed the emphasis of their practice of folk medicine on the healing powers of non-plant materials and ritual cures: a rhinoceros horn, musk deer hooves, and a selection of bird droppings were standard ingredients in their medicine bags. Except for some remedies borrowed from the shepherds and hunters, the authentic *aamji* diagnosed diseases and prescribed folk medicine according to the Tibetan texts. Though plants named in these texts usually correspond to the same genera of the plants in the Gurungs' herb collection area, the species are frequently

1. The Gurung *aamji* are of the *lcma* clan (car jaat) and there are apparently only a handful of them left. One *aamji* informant living near Paundar in Kaski District, operates a small dispensary offering a unique combination of western and folk medicine. He stated that the western medicine is much easier and slightly more profitable. Thakali *aamji* are more numerous than Gurung *aamji* though there were none met outside of Thak Khola.

not the same as those used by the Tibetans. Even among the same species, ecotypic variation is marked, and herb collectors are quick to comment that though a specimen from high altitude may be smaller than a low altitude specimen, it is proportionately more powerful medicinally. A favorite analogy is made that just as hill peoples are stronger and more rugged than their valley brothers, and subsequently have more of the "sap of life" (*N. rasilo*), so the alpine plants have more potent sap than the lowland specimens. Many of the more common traditional Tibetan remedies are known by shepherds and villagers alike.

The herbs listed in traditional Ayurvedic texts which occur near Gurung villages are somewhat more widely known, though generally considered to be less powerful than the Tibetan folk medicine. These medicines are prescribed by self-styled herb doctors, usually *car jaat* sub-caste who have studied Sanskrit herb texts and traditions passed down from an elder relative. Similarly, though the Nepali local names are the same and the plants similar, the species collected by the Gurungs frequently do not correspond to those referred to in Ayurvedic texts.

The hunters and shepherds of the high pasture stressed that one must be of a benevolent spiritual nature before attempting to collect herbs from the highest alpine areas; neglect or respect for the irritable mountain deities (*N. deuta*) would result in bad luck, headache, nausea, or in extreme cases, death. They also claimed existence of "virtually inaccessible" plants offering long life or freedom from disease and hunger, assuming a person could find and subsist exclusively on those particular herbs. Two shepherds described a twenty-meter high phosphorescent tree growing on the glaciers of Macchapuchhre; the glowing orange flowers imbue prolonged physical and sexual endurance when ingested.

Renowned lamas and folk doctors disavowed any extensive knowledge of herbal medicine, while acclaiming the new expediency of western allopathic drugs, the availability of Ayurvedic and homeopathic preparations, and the spiritual (traditional) importance of disease-exorcising rites. One villager suggested that a person relapsing or dying after herbal treatment may leave the folk doctor legally responsible, while ritual treatment allows the spiritual healer to transfer all responsibility to the offended spirit. Elder villagers agreed that before western medicines and health facilities were known, herbal medicine was the backbone of all disease treatment which did not prescribe ritual exorcism. Currently, internal and topical medicines are distinct and mutually exclusive of ritual cures; where one is prescribed, the other is said to be totally ineffective. A lama in Armala who had studied under a now-deceased *amji* said that certain rock fragments and animal organs are "bigger medicine" than plants, but his lack of interest in herbs did not belie his knowledge. When shown plant specimens or asked about a specific herb remedy, the herb doctors and elder villagers recognized them with surprising facility. One self-styled "ignorant" woman in Ghandrung, Parbat District, recognized 85 out of 103 specimens shown, and described the uses and methods of preparation for over sixty of them.

Of those under thirty-five years of age, only the shepherds were found to recognize a considerable number of medicinal herbs in the field, and primarily those of the high pasture. Also, elder villagers could identify many pressed specimens taken from high altitudes despite not having visited there in many years. Even some villagers who had never travelled above the treeline recognized nearly as many of these alpine species.

Many informants were skilled in locating certain herbs and trees, and would scramble well off the trail to retrieve

them. If they did not know of a specific clump or area where they had previously seen a particular plant, they would know well its habitat, whether on the edge of a field, in a forest ravine, or on a north facing scree slope. Furthermore, they universally knew beforehand what biological stage the plant would be in at the time, especially in the case of ripening berries. In collecting medicine for *beghar*, (see below), the plants are collected and prepared preferably on a Sunday or Tuesday, also auspicious days for the collection of other medicinal herbs.

A simple process of filtration (N. *kaparchān*) almost identical to the Tibetat concentration method¹ is employed with some herbs to obtain a stronger and relatively pure medicinal extract: the herb or herbal combination is boiled from one to three hours, allowed to cool slightly, and then poured through a layer of coarse cloth into a large copper vessel. If it does not crystallize upon cooling, it is further boiled and stirred until it crystallizes or precipitates.

A few informants preferred to collect specimens alone and return with them to the village, rather than take a foreigner into the collection territory. One lama (Gurung sub-caste) informant was seen by a villager to be heading in the opposite direction from his stated intention. The reluctance of herb doctors and some other Gurungs to show outsiders the collection sites appears to stem primarily from a hostility toward Indians and Nepalis contracted to collect herbs for Ayurvedic doctors and modern drug companies. These plant collectors reportedly carry out "baskets full" of roots and plant tissue without registering with the Panchayat authorities who claim jurisdiction over the collection of medicinal herbs.

1. As described in Rechung Rimpoche's *Tibetan Medicine*.

Special note should be made here of some specific afflictions which appear occasionally in the herb list:

Epilepsy (N. *cārmāne rog*, *chāre rog*, *bākhre betha*, Grg. *ra betha*), and epileptic fits are brought on according to most villagers by the "susceptible" person having seen a large expanse of a single bright color. Staring at someone wearing a bright blue or red shirt, or just visiting the blue waters of Phewa Lake has been known to initiate an attack. Water is especially avoided by the epileptic.

N. Grg. *kapaṭ* is a term for generally internal ailments caused by eating food that has been hexed by a witch (Grg. *pumsyo*). The person believed to be a witch need only have seen someone eating (esp., tasty or expensive food) for infection of the hex. Diagnosis is obtained by pulse reading (Grg. *nari nyoba*).

N. Grg. *kuphat* in normal speech refers to indigestion from "bad food", though some elderly Gurungs equated *kuphat* with typhoid or other high fever.

N. Grg. *gaano* was described as a knob-like pain in the stomach (ulcer?), usually diagnosed by pulse reading.

N. Grg. *beghar* was considered to be the same as *kapaṭ* by some, though most informants claimed that a witch's hex was not an essential vector of the symptoms of malaise common to *beghar*.

Diagnosis for virtually all afflictions, including those which prescribe ritual treatment, is done by pulse reading. One informant of the lama sub-caste emphasized the importance of five heartbeats for every exchange of breath, and that the amount of deviation from this norm is an indication of the degree of illness. The *aamji* informants remarked that they did count and

compare the pulse and breathing, but that it is not diagnostic, and they concentrated primarily on other un verbalized factors to identify the disease.

Unless otherwise noted, plant use descriptions were independently offered, usually with only slight variation, by at least two informants from separate villages, and were recognized as having the same or similar use in at least two other villages.

Gurung plant names common to three or more villages are listed without any area designation, and are generally understood within the Western Gurung range. Those names peculiar to a smaller area and not mutually recognizable within the Western range are geographically designated as follows:

- A. Armala village, Kaski District.
- Gk. Ghachowk village, Kaski District.
- Gl. Ghalel village, Kaski District.
- P. Paundar village, Kaski District.
- Gd. Ghandrung village, Parbat District.
- K. Kolma village, Syangja District.

As in other developing countries, the folk medicine that was once common knowledge and practice among the Gurung is dying out with the remaining elders of the population. All are aware of the inherent value of medicinal herbs, and some of the more efficacious remedies are being transmitted unchanged; but the young are especially impressed by the wonders of modern medicine, in conformity with their changing social values and the wider availability of the drugs.

This plant list is far from comprehensive, and may contain some contradictory information in spite of conscientious cross-references. It is intended to suggest the rich herbal medical tradition that existed, perhaps only recently, in Gurung

then fried, it is said to be helpful in malaria and pneumonia treatment.

N. <i>aiselu</i>	Grg. <i>palhã</i>	Golden evergreen raspberry
<i>Rubus ellipticus</i> Smith		temperate

Though generally eaten raw, the ripe berries (achenes) are cooked in a large pot until they turn black, and stored in bottles. Drunk as a tonic for sore throat-

N. <i>amrisa</i>	P. <i>mraa</i>	temperate
<i>Thysanolaena maxima</i>	K. Gl. <i>mro kua</i>	

The roots are ground and applied to milk rashes and irritations, and are said to be most effective on boils (Grg. *rhü*). In Kolma, the flowering spike is ground and eaten for heartburn (*ti naba*). The leaves are used in rituals by *lama* sub-caste lamas for dispersing holy water (arg. *phwi kyu*), and the plant is widely cultivated for brooms, made from flowering spikes.

N. <i>angale jhār</i>	Grg. <i>angale no</i>	temperate weed
<i>Ageratum conyzoides</i>	Linn.	

In Armala, the leaves are smashed in the hands and applied to thorns lodged in the feet.

N. Grg. <i>ásuro</i>	sub-tropical, on field margins
<i>Adhatoda vasica</i> Nees.	

The flower of this common plant is collected in November-December, dried, ground and ingested for blood-free dysentery. In Armala, the leaf buds are ground with *ghor tãpre* and taken for nausea.

N. *bāko* Grg. *khyōbale* temperate forest
Arisaema sp.

For fevers and stomach gas, the lower stem of this poisonous jungle herb is ground and eaten in very small quantities.

N. *bās* Grg. *rī* Eng. Bamboo
Dendrocalmus strictus sub-tropical

The water from the hollow of a freshly cut bamboo is fed to children for the control of nocturnal micturition. Older trees yield a white excrecence from the nodes which is mixed with water for a cooling tonic or applied directly to infected sores as an antiseptic. Jessie Glover notes that "the *mhō* is a spirit of a person who has not reached the village of the dead. They are said to live in bamboo clumps or under stones. Whenever young people walk around the village at night, they will always go around in a group and will sing very loudly especially as they go by the bamboo clumps in order to combat their fears of the *mhō*,"¹

N. Grg. *barahar* A. *baral* sub-tropical
Artocarpus lakoocha Roxb. forest

The trunk of this large tree is tapped and the sap is drunk or the bark is ground and ingested for missing menstrual period (*kho noba*). In Armala, the sap is drunk for kidney stones.

N. *barmale/banbare* Grg. *thōra* alpine meadow
Oxyria digyria Hill

The roots, stems and leaves are cooked and eaten for dysentery. Red chilis are not eaten with this.

1. Glover, Jessie, *Some Religious Beliefs and Practices Current Among the Gurung*, unpublished, 1974, p. 3.1.7.

N. Grg. *ban kapās* temperate forests

For *kapat* or other infections caused by evil spirits, a length of cord fashioned from the fibers of this plant is blown on and beaten upon the affected person, especially in localized pain areas. In Ghalel, the roots are ground, mixed in water and fed to man or livestock for internal injuries resulting from falls.

N. Grg. *ban silām* Grg. *ṭana*
Elholtzia blanda

The leaves of this herb are squeezed between the palms and rubbed on cracked blisters and foot callouses. In Kolma, the dried seeds are ground and applied topically to scabies. In Paundar, these ground seeds are eaten to kill stomach parasites.

N. *batkyāulo* Grg. *ṭibru* open sub-tropical
Gk. *ṭipur* forests
K. *ṭipru*

The small seeds are ground and eaten raw for diarrhoea, dysentery and stomach ailments. Pieces of this wood are placed under the eaves of the house to ward away the wandering spirits of the deceased (*mhō*).

N. G. *bethe* temperate to
Chenopodium album Linn. sub-alpine

The small seeds of this plant are boiled in cows' milk and drunk for muscle ailments. In Ghandrung, the seeds are ground and fried in cows' milk for *gaano*.

N. G. *bhaiṅyar/baher* sub-tropical
Ziziphus jujuba Lam.

N. <i>bhudro</i>	Gk. <i>tisyaa</i>	Eng. Berberry
<i>Berberis aristata</i> DC.	Gl. <i>komme</i>	temperate, sub-alpine
	P. <i>gome</i>	
	A. <i>kobe</i>	

Similar to *cutro* (*B. asiatica*), the inner wood is boiled until a yellow sap exudes, which is put in the eyes for eye pain. In Ramja Kot the tea of the wood is drunk, and fed to animals as a pain reliever.

N. <i>bhutkes'</i>	Grg. <i>talēi tā</i>	high alpine meadow
Gnetaceae family	A. <i>tani ṭaa</i>	

Of black, brown and white varieties mentioned, the brown was claimed to be the most efficacious and best of this alpine herb. The roots and leaves of all varieties are dried, ground and burned as incense in the stables of livestock infected with a witch's or other malicious spirit's hex. By man, the burned incense fumes are generally inhaled to eradicate a cold or fever.

N. <i>bhyāgur</i>	K. <i>tēco</i>	primarily temperate
<i>Dioscorea deltoidea</i> Wall	R. <i>tēthar</i>	
	P. <i>tētura</i>	
	A. <i>thējo</i>	

The tubers of this climbing plant are boiled or roasted and eaten for roundworm. It is also taken to alleviate side-aches and constipation.

N. <i>bilāuni</i>	Grg. <i>chōṭe</i>
<i>Maesa chisia</i> D. Don.	

In Armala, the ground leaves and roots of this small tree are said to make a health tonic especially good for the body aches

and pains caused by a deity disturbed by disrespect or neglect (*mhi sarap jhōba*). Only the branch of this tree can be used to suspend the live chicken in the shamanic ceremony (alternatively *ghyã séba*, *mhō tōba*, or *ceñi phreba*) performed thirteen days after the death of a villager, blocking the return road to earth from the wandering dead spirit (*mhō*).

N. Grg. *bojho*

Eng. Sweet flag
rhizome.

Acorus calamus Linn.

Sub-tropical

The rhizomes are chewed as a cough medicine, and for laryngitis.

N. *buki phul/bhaki phul*

Grg. *ṭapṭa/he-ṭapṭa*

temperate

Anaphalis contorta (temperate)

A. *triplinervis* (sub-alpine)

A. *napṭa*

These common weeds are gathered in bunches when flowering in the fall and hung from the ceiling of the house as a cockroach repellent.

N. *cātra niuro*

Grg. *Yopla lowta*

temperate
forest

Diplazium sp.

The new shoots of this fern are cooked and eaten for dysentery and stomach aches, imparting a good taste to other vegetables cooked with it.

N. *cari amilo*

R.P. *kyūpro*

temperate
forest

Oxalis corniculata Linn. K.A. *nwa kyumro*

Gk. *nawār kyū*

In Armala the flowers, and in Kolma the leaves of this small herb are expressed in the hands and applied to the eyes for cataracts and other eye ailments. The leaves are also wrapped

N. *dhāka/dhakai* Grg. *khlyā klē* temperate forest
Arisaema sp.

The fermented leaves are cooked and eaten as a green vegetable, said to alleviate dysentery and other stomach troubles. In Ramja Kot the seeds and stems are ground and eaten for dysentery.

N. Grg. *dhāiyāri* primarily sub-tropical
Woodfordia fruticosa Kurz.

The dried flower is soaked in hot or cold water, then drunk for stomach aches and dysentery. The bark is also boiled and used for tanning leather, imparting a reddish color.

N. Grg. *dhaturo* temperate
Datura spp.

In Armala, the fruit is crushed and fed to buffalo as an aphrodisiac. In Kolma, a small amount of this poisonous fruit extract is ingested after being bitten by a rabid dog.

N. *dubo* A. *no dubo* temperate to alpine
Cynodon dactylon Linn (Pers.)

In Ghandrung, this grass is ground with marble dust and the *Pyāuli* plant and applied topically to infected wounds or boils, the poultice being held in place with 'Nepali paper'. The leaves are deemed to have auspicious properties (N. *coko*) playing a role in many rituals, primarily Hindu.

N. G. *ekle bir* A. *ek phāle bikh* open temperate forest
Lobelia pyramidalis Wall.

The expressed root juice is boiled and eaten for infertility in women.

N. Grg. *gaulaata* sub-alpine
Lacanthus peduncularis Royle

The roots of this herb are ground and applied topically to sprains and dislocations.

N. Grg. *ghor tāpre* Eng. water pennywort
Centella asiatica (Linn.) Urban

To reduce high fevers, the leaves of this common village plant are squeezed vigorously between the hands and massaged into the forehead and stomach. In Armala, the entire plant is ground and included in the preparation for epilepsy, and when taken alone is said to be efficacious in the treatment of *gaano*, *kuphat* and painful urination.

N. *giṭa* K.R. *kāmlo*
Dioscorea bulbifera Gk.P. *seka*
A. *khāsīyo*

The bitter tasting fruit of this spreading vine is sliced and boiled in a thick ash-water mixture for one hour. After rinsing in cold water it is ingested for treatment of intestinal parasites.

N. *gol kākri* R. *tus putu* sub-tropical
Melothria heterophylla A. *thā kaja*
Gk. Gl. *those kudo*
P. *thosār katu*

The fleshy fruit of this open forest vine is eaten raw, and the seeds ground and eaten with water for sore throat and as a cooling tonic. It is also said to be medicine for *kuphat*, headaches and malaria.

- N. goru aĩselu/gaai auselu Grg. me palhã temperate forest
Rubus rugosus climbers
R. paniculatus

In Ghandrung the bark is ground and applied topically to scabies and other rashes. The berries are eaten raw or cooked for

- N. gundergāno/gujergāno Grg. tāmarkhi
Tinospora sp.

The large tuber of this vine-like plant is threshed, mixed with rice flour or wheat flour and fed to cattle in treatment of red-water disease (*lāl muti*). The tuber is also cut into chunks and thrown at an arriving bridegroom's party. Two informants claimed existence of a rare phosphorescent variety of this plant, *mhroghya tāmarkhi*, available at only the highest limit of vegetation. It is said to be a powerful panacea.

- N. gurās Grg. poṭṭhā Eng. *rhododendron*
Rhododendron spp. Gd. *poth*
 Gk. *puṭṭā*

The flowers of the red-flowering varieties are collected in the spring, dried, ground, and mixed in food to cure diarrhoea. For throat aches, the red flowers are eaten raw. If a fishbone is caught in one's throat, repeating the word *gurās* three times is reportedly sufficient to dislodge it.

- N. gwīyāli/guyeli Grg. *tibru* sub-tropical to
Eleagnus latifolia Linn. Gl. *timru* temperate
 K. *khruni*

The sweet red fruit of this shrub is eaten in May and June for its cooling properties. The crushed roots are fed to children to reduce fevers. In Kilma, witches are said to have a weakness

for the taste of this plant, and a plate made of the leaves containing ashes and a chili pepper is placed on the road to repel them.

N.G. *hārjor*

Eng. *common mistletoe*

Viscum album Linn.

Informants alternately described the roots, fruits, bark or leaves as being ground or crushed and applied topically to breaks, sprains, and bruises. In Armala, the fruits are cooked, wrapped into a compress.

N. *halhale*

Grg. *ulbi*

Rumex nepalensis

P. *ulphi*

Common near animal sheds, the leaves are crushed and rubbed on white patches on the skin caused by vitamin C deficiency. In Ghandrung the roasted roots are ground and used similarly. The fresh leaves are cooked and eaten by those suffering from nausea or diarrhoea. In Armala, a plant called *tārkhya ulbi* (N. *seto halhale*), *Cynoglossum* sp. is used in a preparation for the treatment of epilepsy.

N. *hari unio*

Grg. *chīgā*

temperate forest

Diplazium polypodoides

Bl.

P. *cyiā*

The root juice is expressed and applied to open cuts as an antiseptic. The entire plant is placed outside above the door for *lute waaba*.¹

1. "Scabies exorcism". On the first day of the month of Srawan (mid-July), these and up to twenty species of plants are used as ritual protection against an outbreak of scabies.

N. Grg. *jamuna*Grg. *jamuna si*Gk. occ. *tijā*

The fruit of this plant is dried and powdered, then stirred in water and drunk for diarrhoea and stomach pain. Occasionally eaten raw when ripe.

N. Grg. *jatamāsi*Gk. *jermaśi*Eng. *spike nard**Nardostachys jatamansi* DC.

sub-alpine

The dried leaves and pedicel are burned as incense to ward off evil spirits. The smoke is directed over the affected person's or animal's body. Used primarily for treating livestock.

N. *jhāu*Grg. *leto* (on rocks)*Lichen* spp.*chepal* (epiphytic)Gk. *chama mhwi*

The lichen is occasionally picked fresh, rubbed between the hands and dusted on open cuts and abrasions. A holy purified plant according to Hindu religious tradition, it is used ritually in *narayan puja* and other rituals for its 'cleaning effect'.

N. *kaalo niuro*Grg. *yopla kuta/mhro kuta*

open sub-

*Tectaria macrodonta*R. *kuturge*

tropical forest

The roots of this fern are ground and eaten for beghar, dysentery and diarrhoea. The new leaf shoots are cooked and eaten, which Pignède says is taken for stomach ailments.¹

N. Grg. *kālsinkha*Grg. occ. *Mhrogghya Sinkha**Cheilanthes albomarginata*

field margins

1. Pignède, Bernard, *Les Gurungs*.

The new leaves of this small fern are ground and eaten for treatment of *gaano* and stomach gas. The roots are ground and ingested in case of giardiasis. A piece of the (black) petiole is inserted as an antiseptic filler to keep pierced ear and nose holes from closing.

	Grg. <i>keje</i>	alpine meadows
<i>Rheum moorcroftianum</i>	Gk. <i>kesa</i>	

Shepherds and hunters dry and smoke the leaves of this herb in a pipe for sinusitis.

N. <i>kharsu</i>	Grg. <i>pyena</i>	Eng. <i>Kharsu Oak</i>
<i>Quercus semicarpifolia</i>	P. <i>pyeno</i>	temperate forest

The trunk or foot of an aged tree is tapped on the scar tissue of a broken branch or other injury, and the sap collected. Heated and drunk as a tea, it relieves muscular aches, though it is occasionally taken simply for its cooling properties.

N. <i>kukur dāino</i>	P. <i>ñe kre</i>	temperate forest
<i>Smilax</i> spp.	A.K. <i>nāi khre</i>	
	R. <i>nagi krai-krai</i>	
	Gl. Gk. <i>nae re</i>	

The tender new shoots are eaten raw or made into a digestion-stimulating chutney. The stems and leaves are used for *lute waaba*, and in Syangja district the stem is used in building the *pīah* symbolic funerary image. The berries of *S. macrophylla* are eaten raw.

N. <i>kurkure ghās</i>	Grg. <i>kurkure no</i>	Eng. Horsetail
<i>Equisetum</i> spp.	Gk. <i>mi thu</i>	moist lowland ravines

The raw plant is ground and eaten for *kuphat*, and for its cooling properties.

N. Grg. *kumkum*moist rocky ravines
2,000 — 3,000 M.*Didymocarpus leucocalyx* C.B.Cl.

The basal leaf tissue (N. *satte jiban*) of this cliffside herb is burned as incense to ward away evil spirits. It is also dried, powdered and mixed in vegetable oil. Applied to the hair, village women claim that the scented tonic stimulates hair growth.

N. *kurila*K. Gl. *lhodu*

Sub-tropical

Asparagus racemosus Willd.Gk. *pwitu/pattu*R. *lutur*A. *pajo toro*

The tubers are ground and eaten for varicose veins, and used as laundry soap. The new shoots are made into a tasty chutney which is said by some to be a panacea. The leaves and stems are used in *lute waaba*.

N. Grg. *kutki*

Eng. Gentian

Picrorhiza scrophulariaeflora

sub-alpine

The bitter tea made from the ground roots of this high altitude herb is highly valued for its efficacy in reducing fevers. The root extract is applied to livestock wounds as an anti-parasitic.

N. Grg. *kyāmuna/kemana*

sub-tropical

The dried leaves and bark of this tall tree are rolled into cigarettes or smoked in a pipe for sinusitis and colds. The ground bark is occasionally boiled into a mash and swallowed for coughs and colds. In the vicinity of villages there are few of these trees without scars where the bark has been chipped away for this popular medicine.

N. *lākuri* Grg. *rāguli* Eng. Ash
K. *rāuli*

In Ramja Kot, sap is collected from between the cambium and bark of this tree and mixed with a small amount of water, turning a deep violet color. This paste is used as a substitute for gentian violet antiseptic.

N. *lasune sāg* Grg. *no t̃ā* Eng. Wild garlic
Allium wallichii Kunth

The wild garlic bulb is boiled, fried in ghee and eaten for cholera and diarrhoea. It is a common ingredient in stomach tonics.

N. *lausi/lapsi* Grg. *khāiyā*
Spondias axillaris Roxb.

The succulent sour fruits of this large tree are eaten with the ground inner stone, in splenomegaly (N. *phiyo barṃu*).

N. Grg. *lūre kāra* Grg. occ. *lūre pujho* temperate forests
Smaranthus spinosus Linn.

Considered a good diuretic and laxative, the entire plant is crushed, mixed with water and ingested. In northern Kaski District a paste made from the crushed roots is applied topically to the navel to stimulate urination. The plant is used in fashioning the *plah*, symbolic funerary image.

N. Grg. *lute jhār* sub-tropical forests

The expressed leaf juice of this jungle plant is put on parasite-infected wounds of livestock. The leaves are essential in *lute waaba*.

N. *māne* Gl. Gk. *jhalkho* moist temperate forests
colocasia spp.

The epiphytic species are ground with the bark and the leaves of *ciple sagi* and applied externally to skin rashes and boils.

N. <i>magar kãici</i>	Grg. <i>kyũbro</i>	temperate forests
<i>begonia picta</i>	A. <i>kyũmrũ</i>	

The stems of this herb are collected, crushed in the grain thresher and eaten in loss of appetite. The leaves are crushed and rubbed on pained nipples, man and animal's, or made into a tasty chutney.

Grg. *malkiśri*
Desmodium sp.

In October the seeds are dried, ground and applied to cuts as an antiseptic.

N. <i>malo/amilo</i>	Grg. <i>ãsikra</i>
<i>Viburnum stellulatum</i>	A. <i>ãcita</i>
	K. <i>narjhõ</i>
	Gk. <i>ehra</i>

The acidic fruit is crushed and ingested as a stimulant, or boiled until thick and added to chutneys. Pignède shows the wood of this tree as fashioning the center axis of the *plah* symbolic funerary image.

N. Grg. <i>neramsi/nermasi</i>	alpine meadows
<i>Aconitum</i> spp.	Eng. Monkshood

The red variety of this high altitude plant is distinguished from the unused white variety (though they are possibly the same species) in this way: the roots are dug and the tubers cut slightly. The white starch of only the red variety oxidizes to a deep red color within seconds, while that of the white variety remains white. The ground tubers are ingested primarily as a poison antidote, and are often fed to

sheep which have grazed on poisonous plants. It is also taken to reduce fevers, and in alcohol intoxication. Pignède mentions its topical use on burns.

N. Grg. *pākhan bhed* sub-alpine meadows
Saxifraga parnassifolia

For backaches, rheumatism and bodily pains the ginger-like root is peeled and fried in ghee. In Syangja district it is believed that young girls won't have children if they eat it, though there was no known intentional use of it for birth control. The ground root is also added to the food of livestock affected with red-water disease (N. *lāl muti*).

N. *rūkh pānggra* R. *prome* temperate forests
Entada scandens P. *preme*
 Gl. *prami*

The large circular nut is ground on a stone and applied to boils, rashes and irritations, and rubbed in the noses of grazing livestock during the monsoon as a leech repellent. The fleshy part of the seed is also fed to livestock in small doses as a vermifuge. Honey collected from bees which have collected nectar from this tree is intoxicating when eaten.

N. *pāni amala* Grg. *kyu phū* moist temperate
Nephrolepis cordifolia K. *na pre* undergrowth
Polystichum leutium

The underground rhizome of this small fern is washed and eaten raw as a cooling agent.

N. *pāni saro* Grg. *kyeora* moist sub-tropical
 undergrowth

The succulent shoots are crushed and rubbed on the body as a cooling lotion. The roots are used in treating sinusitis. The plant is used in *lute waaba*.

- N. *paiyū* Grg. *cyārbu/payem/paē* open temperate
Prunus cerasoides D. Don. K. *thaar kyaarba sI* forests
 Himalayan cherry

In Paundar, the inner wood is crushed to a paste in the grain thresher and allowed to sit, turning black upon oxidation. The paste is then applied to venereal infections (N. *biringi*). The wood is used to fashion spiritually protective walking canes, and is essential in many shamanic rituals, deemed to be powerful in warding off the *mhō*, a deceased's returning spirit.

- N. Grg. *phacyāñ* open forests and fields

The bitter ginger-like tuber is eaten raw for chronic coughs and colds, and in laryngitis it is said to bring back the voice immediately. In Kolma, slices of the tuber are stabbed onto small stakes made of *mah* (*Arundinaria* spp.) to ward off the *mhō*.

- N. Grg. *pustākari* highest alpine meadows

An extremely rare high alpine plant. Shepherds and hunters in the Annapurna-Macchapuchare area describe it as a small herb supporting an insect which ascends the inside of the flower stalk, causing it to sway back and forth. For headaches and dizziness it is burned and the smoke inhaled, and is said to make a rejuvenating tonic able to resuscitate those who have been dead less than a few minutes. The Department of Medicinal Plants, Thapathali, has an unidentified specimen meeting this name and description.

- N. *pyāuli* Grg. *nimé pā* common along walls

The leaves, flowers and stems are crushed and applied topically to bee stings, insect bites and thorn stabs. In Kolma, the roots are ground and eaten for stomach pains.

N. *rakta candan/rāto candan* Grg. *olche* temperate forests

The bark is mixed with other folk medicines in a preparation to stimulate menstrual flow. The powdered bark is also occasionally added to distilled alcohol for taste.

N. Grg. *seto bihã/thulo bihã*

Lecanthus pedicularis

The plant is cooked with a specimen of *tin pāte* (*Dichroa Febriguga*) which has leaves in whorls of three. The infusion is ingested to correct chronic dizziness. The plant is also used in treatment of epilepsy.

N. *sāldhup/guguldhup* Grg. *siuri* temperate forest

Pinus longifolia Roxb.

The resin is mixed with yogurt and ingested for diarrhoea and flatulence. The resin is burned as incense and the smoke directed over the body of dogs infested with dog flies (Grg. *nomuse*).

N. *sarpa makai* Grg. *puri makhaṛ* open temperate forest

Arisaema tortuosum (Wall.) Schott.

During the monsoon, a pinch of the fruit is mixed with marijuana (*Cannabis sativa*) into an intoxicating drink and ingested for treatment of malaria and pneumonia.

N. Grg. *satuwa/satuba* temperate forest

Paris polyphylla Smith

The peeled rhizome is ground and ingested as a poison or narcotic antidote, or as a general stomach tonic when mixed in hot water. In Ramja, it is also applied topically to open wounds. According to Pignède, in Mohoriya the ground rhizome is mixed with water and applied to the forehead with fine paper, as a poultice for headaches.

N. Grg. *siũri* common around
Euphorbia royleana Boiss. villages

The leaves are roasted and the exudant put in childrens' ears for earaches. The thorn is used for piercing the ears of the newborn. During the monsoon the poisonous milky sap is applied topically to joint aches and a small pinch can be ingested for *beghar*. It is said that one will go blind if the milky sap enters the eyes. The stem is essential for *lute waaba*.

N. *siltimur* Grg. *kutũm* open temperate
 A. *kutu* forests
 K. *siltumri*

The nuts are picked in August, chewed and swallowed raw, or mixed in chutney for diarrhoea, nausea and flatulence.

N. *sisnu* Grg. *pulu* Eng. Nettle
Urtica dioica Linn. Gl. P. *polo*
 A. *palo*

In cold weather and for chills, the leaves are boiled in place of tea. In Ramja, the plant is used as a medicine for bites from non-rabid dogs.

N. *sun phul* Gk. *basanta* high alpine scree
Tanacetum nubigenum A. *sun pwaeki phul* slopes above 4,000 M.

This small herb is burned and it's smoke passed through the clothes for removal of body lice. Leaves kept in the pocket are also an effective lice and insect repellent.

N. *tarul* Grg. *timi/temẽ* Eng. Wild yam
Dioscorea pentaphylla temperate forest

The raw tuber is said to be an effective tuberculosis remedy when eaten daily. The cooked yam is peeled and eaten to

BIBLIOGRAPHY

- Bhatt, Dibya Deo
Natural History and Economic Botany of Nepal. Department of Information, H.M.G.: 1970.
- Burang, Theodore
The Tibetan Art of Healing. Watkins: London, 1974.
- Dikchat, Rammani Acharya, ed.
Saadhaaran Chaltiko Aushadhi wa Gharelu Aushadhi. Saajha Prakaashan.
- Clover, Jessie
Some Religious Beliefs and Practices Among the Gurung. Unpublished: August, 1974.
- His Majesty's Government of Nepal, Ministry of Forests, Department of Medicinal Plants. *Keys to the Dicot Genera in Nepal*. Kathmandu, 1967.
- Pignède, Bernard
Les Gurungs, Une Population Himalayenne du Nepal. Mouton and Co., 1966.
- Rechung, Rinpoche
Tibetan Medicine. University of California Press: Los Angeles, 1973.
- Stainton, J.D.A.
Fcrests of Nepal. John Murray Co.: London, 1972.
- Toba, Sueyoshi
"Plant Names in Khaling, a Study in Ethnobotany and Village Economy". *Kailash*, Vol. III, No. 2 (1975).