



Herbs and the Evolution of Human Societies

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GENERAL INTRODUCTION

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(TRANSLATED BY ANNE HELLEGOUARCH-BRYCE)

It was the placing under lockdown of populations all over the world at the start of the year 2020 due to the Covid-19 pandemic that initiated the train of thought that inspired this introduction. Irrespective of political systems, social structures or the cultural characteristics of states and populations, it was humanity as a whole that suddenly faced this unprecedented and exceptionally tragic ordeal. Medical staff everywhere rallied round, researchers and scientists set up new projects, and heads of state appealed to the public spirit of the population, first, to stem the spread of the disease and then, when it was ‘under control’, to plan the lifting of the lockdown measures, progressively and with great caution. All over the world, the anxiety induced by the situation led us to question our way of life and our habits, down to the most mundane aspects of our everyday life and the ways in which we coexist and socialise with our fellow human beings. Ultimately, the pandemic has acted as a catalyst, crystallising all the critical implications that climate change and rising sea levels are likely to have on the way we live, work, travel, and consume or produce goods. In this respect, the worldwide health crisis has led us to focus more keenly on these issues; it has made us more aware of the urgent need to address them and we are being told that, from now on, we must learn to live differently, taking into account the risk of a widespread health crisis. Asia has long had a greater awareness of this risk than the West, due to the series of epidemics that have recently affected Asia in close succession (Hong Kong flu, SARS, etc.) and also due to chronic industrial pollution. But more profoundly still, it is because of different cultural and philosophical conceptions of the relationship between humans and nature. It is on this relationship that we propose to shed some light here, by focusing on

plants, and more specifically on the place and role of medicinal and aromatic plants in Western and Eastern cultures.

In 1763, believing himself to be persecuted, an ageing and ailing Jean-Jacques Rousseau deliberately retreated into seclusion and devoted his time to collecting medicinal plants. It would be a mistake to see this activity as nothing more than a hobby consisting in creating herbaria or a mundane utilitarian means of collecting remedies to treat infections. Rather, it should be understood as a return to nature, implying a genuine discovery of the world around us and an attempt to fathom its links with humankind. Patiently gathering plants, experiencing the aesthetic emotion brought about by contemplating them and meticulously studying collected samples: these are all requisites for conducting thorough research and analysis into understanding the conditions in which vegetation appears and develops, and the properties of plants – that is, the constitution of a body of knowledge useful to humanity. Rousseau's *Letters on the Elements of Botany* undoubtedly illustrate his philosophical reasoning, but also – not without some poetry, it should be said – his enthusiasm, his love of nature and his admiration for laws which, according to him, are lessons for humanity.¹

At the start of the 20th century, the writings of American author John William Harshberger (1869–1929) on plant ecology, the pathology of plants and fungi, and the morphology and physiology of plants² paved the way, according to Roland Portères (1906–1975),³ for the newly-emerging discipline of ethnoscience, which is a branch of ethnology focussing on the study of the concepts and systems of classification devised by every society in an attempt to understand nature and the world. As a discipline based on association, ethnoscience is based on the study of the original relations that developed between human societies and plants, and on the ways in which these relations evolved in order to investigate the conditions of this evolution. The human use of plants, and more specifically the exploitation of resources, as an expression of the interrelationship between humans and the living world, fully reflects and underpins the development of human culture, ideas and technology throughout human history. The rise and fall of plant resources is closely linked to the survival and future of humanity,⁴ and to civilisations emerging and developing.⁵ To this end, many different disciplinary fields are called upon: ethnology and anthropology, first of all, to shed light on what French anthropologist Claude Lévi-Strauss famously called the “*pensée sauvage*” (humanity's mythology, beliefs, practices, customs, folklore, and the way it resorts to magic or is expressed through the arts), but also archaeology, history

(including aspects such as religion or technology) and philosophy, in that it expresses ideas pertaining to nature and its relationship with humans, without forgetting the ‘hard’ sciences such as botany or biology.

After initially just being predators, humans gradually domesticated plants and animal species – or should this be seen as a more complex game, in which certain animals saw the benefits of commensalism? Humans, however, remained dependent on Nature and its seasonal cycles, and on the impact of weather changes that caused food shortage and famines. Humans spared no effort in trying to free themselves from the dangers that threatened them – by the invention and use of tools (hoes, ploughs), the harnessing of animal force to serve their needs, and the development of technology (irrigation techniques, for instance), as well as through feats of construction (such as terrace cultivation or the creation of polders in certain wetlands), or the use of soil enrichments and fertilisers.

Gradually, over the course of thousands of years of agrarian history, the landscape was transformed and shaped, and the quality and yield of soils and plant species were improved. This all changed when agricultural advances and revolutions provided seeds improved through selection, all sorts of new machinery, fertilisers, fungicides and herbicides, as well as different methods of cultivating the land which improved productivity and thereby reduced the cost of production. The relationship between humans, on the one hand, and the soil and the plants it produced, on the other, was all the more disrupted as the growing use of specialised crops reduced the variety of plants that were being cultivated in a given place: this often meant that some plant species formerly seen as useful in the traditional system were now considered as pests, since they vied for space with more valuable ones. These undesirable plants were treated with weed-killers that kept them in check without totally eradicating them, so the seed bank contained in the soil ensured they were able to survive and propagate.

Although the productivist model of agriculture did not have the same impact on medicinal and aromatic plants, which are rarer with specific uses, the production and uses of such plants have been affected nonetheless. The decline in our consideration for medicinal plants is correlated to the production of medicine and drugs by a fast-developing and all-powerful pharmaceutical industry, and the herbalist shops that were still common in the 1970s have, for the most part, disappeared. Aromatic herbs have suffered from the development of the chemical industry, which has created many synthetic additives, while on a global scale, eating habits have become increasingly standardised. However, the

memory of the old agrarian and rural civilisation, and of the intimate bonds that linked humans to plants, has not totally disappeared, even in those regions that were most impacted by agricultural revolutions, and this is especially true where medicinal and aromatic plants are concerned. The surviving remnants of ancestral practices bring us knowledge and empirical know-how handed down by one generation to the next. Like any other form of material or immaterial cultural heritage threatened with oblivion or disappearance, this collective memory ought to be preserved, but even more importantly, it should be studied as a testimony of the relationship between humans and nature, as an insight into a way of life, a way of perceiving the world and finding one's place in it. More profoundly, it is a key to understanding how, at one particular point in time in the history of human societies, the relationship between humankind and the natural world was being seriously thought about. By putting into perspective all these collected testimonies, one can retrace a part of history and gain insight into entire episodes of the lives of our forebears – their everyday life, fears, joys and sorrows.⁶

Essential biographical references include several authors: Isaac Henry Burkill (1870–1965), Richard Evans Schultes (1915–2001), André-Georges Haudricourt (1911–1996) and more recently Pierre Lieutaghi. Herbs used in cooking or industry, and medicinal and aromatic plants have all been studied by botanists so that their biology holds no secrets for us and their history is documented, particularly in respect to their production mode, uses and trade. Yet human societies' conception and perception of 'herbs', as such, remains a field of research that has so far not been explored, even though herbs are a primary element in our environment – a form of skin that protects the earth, a fundamental element of all ecosystems and originally a source of fodder for livestock. As people today rediscover that wetlands serve an actual purpose and learn about the part they play in the environment, the benefits of 'natural meadows' (that is, meadows that are untilled and 'left to their own devices' so that the same species can grow back year after year) are quite rightly being appraised from a different point of view. More important still, as underlined by Michel Chauvet, their presence recalls the traditional agrarian systems:

“domestication does not stop at the mere relationship Man formed over thousands of years with animals; it also encompasses the more complex and far more ancient one he has with plants. From the very start, Man had to contend with the plant world which he both feared and respected: to feed and clothe himself, and to cater to his medical and spiritual needs, Man organised his life around certain plants.”⁷

It is this relationship between humans and medicinal plants that prompted the contributions in this volume: they analyse the link that humankind establishes with nature, and examine the way a dialogue was set up between these two worlds and how it has evolved. From a geographical point of view, the texts take us to Africa, America, Asia and Europe via Brazil, Canada, China, Ethiopia, France, Somalia, Switzerland, Tibet, Tunisia, Ukraine, and the United States. The 14 contributions are organised into three parts. The first deals with the pharmacopeia that plants constitute: their medicinal powers, the knowledge that emerged around them – empirical and also scientific knowledge, which formed the matter for theoretical teaching – their sphere of prescription (each plant being a ‘remedy’ prescribed to cure a particular affliction, but which also ‘healed’ the body in a more global way: ‘humours’ and soul included), the conditions of their therapeutic use, and since plant therapy expresses a way of existing in the world, the inherent relationship between nature and human beings.

The second part focuses on herbs as objects giving rise to cultural expression: literary descriptions, art and the making of botanic collections or herbaria; and plants as a pretext or subject for fairy tales but also, in some cases, for investigations to discover the mystery that surrounds them, as in the case of the famous *Annedda* of Jacques Cartier. Another article describes a mythical ‘herb’, the ‘fern flower’, and its symbolism, in the complex of rituals celebrated in the summer solstice festival of *Ivan Kupala*, on St. John’s Night, in Slavic countries.

Human survival and reproduction depend on nature. In the long history of human development, understanding the characteristics and functions of plants in their natural environment has allowed people from all corners of the world to thrive. Beyond their intrinsic value, for many the economic benefits to be reaped from the natural world are equally essential for survival. In the third part of this book on scientific research exploring the relationship between plants and humans, we introduce the fact that in some areas of the world, plants are an important means of human survival. In Tibet, in order to survive financially and to escape eradication, mountain people take the risk of digging out “*Cordyceps sinensis*” which is sold to and by the Chinese for as high a price as gold; in some cases the money Tibetans earn is used to escape the tyranny of colonisation and reach democratic and free countries in the West. Yet, the excavation of this rare high mountain plant can also lead to the damage of natural ecology ecosystems. In Tunisia, people are protecting and picking rosemary on a larger scale in order to obtain greater economic profits and improve local

living standards. In poverty-stricken areas of China, lotus flowers have become a spiritual pursuit and a material guarantee for local people to become rich.

In the course of travels to distant lands, even today medicinal plants can be the object of spectacular discoveries that add to the knowledge and better understanding of our environment – thereby bringing new food for thought to the age-old questioning on the origins of the relationship between humans and nature. This volume displays the diversity of themes linked to the issue of the relationship between herbs and humanity, the complexity of the questions raised, the diversity of approaches by researchers of different origins and with different academic training, and the contribution of interdisciplinarity and transdisciplinarity to the debate. Although this work sheds new light on the topic, broadens the scope of our knowledge and reappraises certain assumptions to offer fresh conclusions, there remains yet more work to be done on the subject. The phenomenon of direct interaction between humans and plants is a dynamic process of change. The use of plants by humans is influenced by social changes, behavioural changes and changes in values. Both the material and spiritual significance can play a role in the development of regional plant resources, and local economic and cultural development.⁸ We therefore hope that this volume will only be the starting point to other studies that will further the analysis and conclusions offered here, and that it will inspire the development of international and multidisciplinary research, and so may contribute to establishing a more harmonious relationship between humans and nature.

Notes

¹ Jean-Marc Drouin, “Rousseau, le philosophe botaniste,” *Historia* 100, March/April 2006, p. 90-93.

² Pierre Le Roux, “Ethnoscience: une définition de l’ethnoscience. Approche historique et épistémologique,” in Aurélie Choné, Isabelle Hajek, Philippe Hamman (dir.), *Guide des Humanités environnementales*, Villeneuve d’Ascq: Presses universitaires du Septentrion, 2016, p. 287.

³ In 1935, Roland Portères created one of the world’s first laboratories of ethnosociology at the Natural History Museum (Muséum national d’histoire naturelle) in Paris.

⁴ David M. Bates, *Economic Botany*, 1985, 39 (3), 241-265.

⁵ Roland Portères, “L’ethnobotanique: Place – Objet – Méthode – Philosophie,” *Journal d’agriculture tropicale et de botanique appliquée*, vol. 8, no. 4-5, April/May 1961. p. 102-109.

⁶ Pierre Lieutaghi, *La Plante compagne : pratique et imaginaire de la flore sauvage en Europe occidentale*, Arles, Actes Sud, 1998.

⁷ Michel Chauvet, "Préface," in André-George Haudricourt and Louis Hédin: *L'Homme et les plantes cultivées*. Paris, Édition A-M. Métailié, 1987.

⁸ Pei Shengji, 裴盛基, "Ethnobotany and the Development of Plant Resources," (民族植物学与植物资源的开发) in *Acta Botanica Yunnan*, Kunming, 1988, p. 135-144.

PART ONE:

**HERBAL INTELLIGENCE
ON THE HUMAN BEING**

BODY CARE AND SOUL CARE:
A TYPOLOGY OF THE HERBS
IN THE MEDICINAL RECIPES
OF THE AUTOBIOGRAPHICAL WORK
OF THE BRETON PEASANT JULIEN GODEST

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(TRANSLATED BY ELISE THEPAUT)

Knowledge in popular medicine is generally borne by oral tradition and access to written sources is rarely possible. The presence of a wide range of herbal remedies in the literary work of the self-taught Breton peasant Julien Godest, written in the Breton language around 1905 under the title *Envorennou ar barz Juluen Godest (Bard Julien Godest's Memoirs¹)*, is therefore all the more precious as it is unusual. The object of this article is to establish a typology of these medicinal remedies. The focus is on what types of plants are used, what the ratio is of wild to domestic plants, which parts of the plants are used (flower, leaf, bark, fruit, etc.), what methods of preparation (raw, decoction, blend, poultice, mixture, etc.) and administration are used, and what diseases are treated by these plants (short-term or chronic diseases, parasitical illnesses, wounds, etc.) Through this typology we will also try to understand what relationship this peasant had with nature and with his close environment, and what his conception was of body care in connection with soul care, within the framework of his Christian beliefs in the organisation of the world.

**A small herbal book in the life story of a self-taught
Breton peasant**

Between 1905 and 1913, probably at an irregular pace, Julien Godest (b. 1849 in Plougonver – d. 1932 in Callac) wrote a text of about 350 pages in

Breton in a black account book.² The author was born to a poor farming family, all of whose members probably only spoke Breton and were illiterate, which should have made it impossible for him to have access to the world of writing. Julien Godest, like most other children of his social conditions at that time, did not attend school. This lack of schooling in his family, which he also evokes in his account,³ had a profound impact on his culture, which is essentially oral. He also closes the first part of the ‘first book’ of his *Memoirs* with this signature in the form of an affirmation of the essential and fundamental place of orality in his culture: “*Julien Godest, Gwelloc’h he gomjou evit he skritur*” [Julien Godest. His words are better than his writings].

However, Julien Godest made the decision to cut back on his sleeping time to learn to read and write. After meeting, around 1865–1870, people who gave him an alphabet book⁴ and a few other small pamphlets or books,⁵ he managed to learn to read in four months. While writing was not an essential part of his universe and during his period of learning to write it probably represented only a dazzling aspiration to get socially close to the educated classes, it gradually became the way to fix his oral way of thinking. The catalyst for this acculturation was Godest’s meeting in 1903 with François Jaffrennou, alias Taldir ab Herninn (1879–1956), the central figure of the Breton regionalist movement of the time (later called *emzao*⁶). We shall return to this influence later.

Julien Godest organises his text in a very precise way. First of all, he distinguishes between two books (*levr*): the first book consists of three parts, the first of which concerns the life of his brother Jean-François Godest, the second relates Julien Godest’s own vocation as a bard and the third consists of 14 songs mainly related to the consequences of the combist laws⁷; as for the second book, it is divided into 32 theme songs, and 88 herbal remedies and medicinal advice. This last part is precisely the one we are going to deal with.

A peasant pharmacopoeia

Julien Godest methodically classifies 87 remedies, followed by a final part on general health advice. He mainly proposes an entry for each disease concerned (56 remedies out of 87) and sometimes an entry for the herb mainly concerned (31 remedies): the knowledge of herbs is therefore not valid in itself but as a tool of care. In this peasant world where survival depends on animal husbandry and agriculture, the remedies mainly concern human beings (64 remedies) but also animals (20) and cereals

(1).⁸ Moreover, six other remedies are valid for both humans and animals. The animals to be tended, which are therefore the most important in his eyes, are above all horses (14 remedies), followed by cows (5).⁹ In order to avoid the loss of an animal – and thus to avoid driving a family into poverty – the author advises to treat horses when they suffer from stomach aches, colic, gas and constipation, sore throat and strangles (angina), choking (nasal), hoof diseases, and parasites.¹⁰ As for cattle, particular attention must be paid to weak calf syndrome, frostbite of cows, dairy cows being suckled by weasels or snakes, and especially to cow bloating (meteorisation). Concerning cereals (especially wheat, but also oats and rye), the disease that can destroy a crop is wheat smut.

The plants recommended by Godest to look after humans and animals are all those present in the immediate surroundings of the peasants, directly usable in rural areas (except for eucalyptus which he mentions for its effectiveness and which can be found in pharmacies, but he specifies that it is not found in Brittany; and tobacco which is easily bought). The plants that Godest mentions most often are burdock (8), mauve (6), walnut (5), greater celandine (4), flax (4), ash (3) and strawberry (3). Plants mentioned twice are tuber oat-grass, oak, watercress, leek and elderberry. Finally, the other plants mentioned only once are: wild wormwood, garlic, eucalyptus, broom, houseleek, ivy, silver mint, honeycombed plantain, potato, bramble, reed, fir, santolina and tobacco. It should be noted that only potatoes and strawberries are cultivated plants and that all the others are wild.

These remedies show precise knowledge of the different parts of the plants that go into the preparations. Mallow is used for its roots, leaves and flowers; oak for its bark, acorns and wood (plank); burdock for its roots and leaves; strawberry for its roots and fruit; elderberry for its second bark and flowers; and broom for its flowers and pods. Other plants are used for only one of their parts: boxwood for its tips; fir for its young thorns; ash for its bark; ivy, bramble and walnut for their leaves; santolina and flax for their seeds; and reed for its sap. The remedies sometimes also specify what leaves of the plant should be picked, as in the case of bramble: “The bramble forms its leaves into single shoots or in groups of three. At sunrise, pick the leaves that grow in threes but are perfectly healthy. Harvest the third leaf from each shoot as needed. Pass this leaf through the flame. Place two of them in the shape of a cross on the wound.”¹¹

Most of the ingredients added to these main plants are common, easily accessible and inexpensive products. Water is used in the vast majority of cases, for herbal tea preparations (34 times), followed by milk, mentioned only 8 times. Other ingredients include butter (4 times), coffee (2), salt (2), beer (1), pepper (1), meat or bacon (1), chimney soot (1), and alum (1). Adjuvants are sometimes suggested, merely to improve the taste of the medicine: sugar (9 times), honey or jam (2), cognac (1), liquorice (1), and spearmint (1). Also, for the purpose of having free remedies at hand, the conservation of plants is important to Godest because it makes remedies available all year round, outside of the flowering periods. Thus, he does not hesitate to remind the reader several times of the possibilities offered by drying (ash and oak bark, elderflower, broom flower and pods, acorn, flax seed in flour, worms expelled, dried and crushed) or bottling preparations (pressed tobacco juice, strawberry jam). Ivy and bramble leaves are to be collected at sunrise (remedies Nos. 62 and 63), and broom and strawberries in summer.

The modes of administration are varied, but ingestion is recommended in more than half of the cases (47 times including 7 recommendations for fasting ingestion). Application (25) and enema (8) are quite often indicated. The other methods mentioned are inhalation (2), injection (2), cutting and piercing (2), chewing (1), and spraying (1). Godest mentions three child-specific remedies to combat painful teething, measles and dermatitis; and three female-specific remedies to combat leucorrhoea, and to improve skin texture and complexion. All of the human ailments addressed and their respective herbal remedies are compiled in the chart below:

Chart of correspondences between human ailments and the use of herbal remedies, according to Julien Godest

Ailment	Remedy
Abscess, dermatitis abscess, boil, etc. Cut Inflammation Wound Burn	Walnut (leaf), silver mint Burdock (leaf), houseleek, silver mint Flax (flour), mallow (leaf), flax (seed) Bramble (leaf) Boxwood (spikes), ivy (leaf), potato
Scabies, eczema, skin problems Ringworm, strangles Rash Complexion	Tobacco, burdock (leaf, root), elderberry (bark) Strawberry plant (root) Mallow (root) Leek
Bloating Dyspepsia Stomach aches Constipation Diarrhoea, colic Intestinal inflammation	Ash (bark) Watercress Mallow (root) Linseed Oak (bark, acorn, wood) Linseed
Cough	Burdock (leaf), oats, eucalyptus, fir (thorns), mallow (flower), watercress, celandine, elderberry (flower)
Coughing up blood (haemoptysis)	Mallow
Fever	Tuber oat-grass
Weakness, blood cleansing Loss of appetite	Watercress, strawberry, celandine Strawberry (root)
Nerves	Walnut (leaf)
Rheumatism Gout	Strawberry, burdock (root, leaf), ash (bark) Burdock (root)
Difficulty urinating	Burdock (root), broom (flower and pod), leek
Jaundice	Celandine
Measles	Burdock (root, leaf)
Worms	Wild wormwood, garlic, santolina (seed)
Leucorrhoea	Walnut (leaf)
Frostbite	Ribwort plantain
Teething pains	Mallow (root)
Hair loss	Reed (sap) and burdock (leaf)

Julien Godest also mentions ingredients other than herbs in the remedies he wrote down. Among them are: products from the vegetable kingdom and transformed by man (camphor, charcoal, edible oil, resin, chimney soot (mentioned twice), white wine, vinegar); others from the animal kingdom (honey, butter, cod oil, lard (4 times), egg (3 times), liquid manure); others derived from minerals (alum, tar (4 times)); and finally some common chemical compounds (ammonia, bleach, salt spirit or hydrochloric acid, turpentine, sulphur ether).

The influence of the press and pharmaceutical advertising

Having noticed that Julien Godest's work mentioned a few drug names that had been developed in pharmacies and a few names of specific pharmacists working some distance from his region of origin, I conducted research to find the source of Godest's knowledge in this field, beyond and in addition to his oral culture. I finally discovered the main printed source of these remedies: the bilingual Breton-French weekly *Ar Bobl* (1904–1914, Carhaix) directed by François Jaffrennou, a central figure in the Breton regionalist movement which was defining itself and which became institutionalised from 1898 onwards.¹²

Jaffrennou was the son of a notary from Carnoët. He studied in Guingamp at the college of Notre-Dame-de-Bon-Secours and then in Saint-Brieuc at the college of Saint-Charles, where he was taught by two men who also left their marks on the Breton movement: Abbé Le Clerc (1861–1937) and François Vallée (1860–1949). Jaffrennou first devoted himself to journalism, then began publishing newspapers: *Ar Vro* (*Le Pays*, 1904–1914, all in Breton) and *Ar Bobl* (*Le Peuple*, 1904–1914, which was bilingual). Between the two world wars, he edited two bilingual periodicals: *Le Consortium breton* (1927–1928) and *An Oaled/Foyer breton* (1928–1939). At a very young age he became involved in the movement to defend Brittany and played a role as an initiator, organiser and stimulator: he co-founded the Breton Regionalist Union in 1898, took the name of Bard Taldir at the Eisteddfod¹³ in Cardiff in 1899, forged links between his movement in Brittany and other Celtic countries, and created the Association of Breton Students in Rennes and the Ti Kaniri Breiz in 1900. He joined the Bard and Druid Gorsedd of Brittany and became High Druid in 1933.

Jaffrennou played a role as a catalyst in the writing of Julien Godest's literary text and he was also a role model in the struggle against the anti-congregationist laws of Minister Émile Combes in 1903, even if Godest

retained a form of class pride that made him think that the lower-class Breton people were the staunch champions of the Breton language, unlike the rich and the intellectuals. The influence of regionalist ideology can thus be felt in Godest's text, even if it seems mainly to be related to the context of that period: it is indeed the defence of the Catholic religion and the fight against the rural exodus that brought the two men together. They both saw the Breton language as a means of resistance, in the circumstance of the separation of the Church and State. Godest seems to have found a small place in this community of bards, which brought together only a few noblemen and middle-class members, so to speak, and he managed to adopt certain arguments of the Breton movement that reinforced his native culture.

Julien Godest seems to have had access to issues of *Ar Bobl* published between the end of December 1912 and the end of March 1913, as nearly 60% of the remedies come from, or are inspired by, the paper's "*Al louzeier mad*" [the good remedies] columns published during this period.¹⁴ He wrote down some remedies following the original word for word and adapted others into his local language – for example, this is the case for tuber oat-grass which the column in Breton called *treuz ieot* and which Godest called *ieot onk*. He adapted other columns even more freely, as in the very last recipe (No. 88) in which he summarised a certain number of recommendations only half of which came from the column.

The mentions of pharmacy drugs all come from the paper and include:

- the "Celtic Syrup", a cough syrup for bronchitis and the flu prepared by pharmacist Théophile Moreul (1867–1952) who practiced in Landerneau until 1948;
- the "*Ulminicine Moreul*", a drug used to purge the blood and the body, from the same Landerneau pharmacy, and which was also advertised at the time in other newspapers such as *Le Courrier du Finistère* and *Feiz-ha-Breiz*;
- an unnamed medicine from the pharmacist Fércq in Plabennec, which was effective in cases of weakness, goitres and strangles in children, and to cleanse the blood;
- the "Luciline", lamp oil marketed by the Rouen-based company La Luciline since 1868, a medicine that Godest mentions twice and which he considered as a miracle remedy to fight against rheumatism, contusions, cold sores, toothache, headache, earache, sore throat, neuralgia, side stitches and chest fluxions;

- the “*asa foetida*” quoted in Latin by Godest (which he spells *asa fetida*) and used in a mixture to treat stomach ache in horses;
- the “Aloe tincture” or “Commander’s Balm” to treat foot infections in horses damaged while shoeing;
- the “vesicatory ointment” in case of crushed horse hooves.

It is noticeable, however, that the remedies inspired by the “*Al louzeier mad*” column are overwhelmingly centred on the use of plants: mainly walnut on 4 January 1913, flax and mallow on 15 February, and burdock and strawberry on 8 March, for example. These headings signed “*Ta’koz*” [grandfather] are derived, or try to look as though they are derived, from orally transmitted popular knowledge, and they echo Godest’s previous knowledge or he simply makes them his own.

Care of the body and care of the soul, according to a Christian peasant

Julien Godest set about writing this long manuscript of more than 350 pages, considering it to be the mirror book of a literary missionary, with a view to defending the Catholic faith in a troubled period of de-Christianisation of the Breton and French populations, and of the separation of the Church and State. His belief in a natural order emanating from God and in the idea that this order should in no way be undermined made him express an axiomatic conception of life: access to paradise or hell depends on each person’s merits. A life regulated by the divine commandments opens the gates of paradise and a life contrary to these commandments opens the gates of hell; the fear of hell must incite man to always tend towards the virtuous circle of irreproachable Christian behaviour – in other words, to love God, to love one’s neighbour as God’s creation and to remain in one’s condition since it is God who has chosen it for each person. For Julien Godest, man must speak the language God has chosen for him, and he must live in the country God has placed him in and in the social condition God has given him. In the same way, birds honour God every morning by their song and plants do likewise by their daily blooming.

Finally, God has provided plants for mankind to use for healing. A kind of pantheism in Godest’s worldview can thus be traced back to ancient cultural sources that his encounter with the regionalist ideology of the turn of the century reactivated, helped to shape and legitimise.

Symbiosis with the immediate environment, and the purity of body and soul (of the one who presents himself before God), are the two requirements that offer the possibility of a good Christian life. Godest uses the metaphors of cleanliness and pure water for this purpose. He resorts, for example, to the parable of badly washed plates: "All the bowls should be washed with boiling water and scrubbed and scrubbed again with boiling water until they are clean, as when they were new, so that the food that is put in them will smell and taste good again."¹⁵ Dirty water, for him, is the explicit equivalent of sins: "Those who are burdened with sins are this cold, dirty water."¹⁶ He uses hygienic arguments against the rural exodus, which encourages the circulation of diseases: "In our beautiful country of Lower Brittany, most of those who have contagious diseases are people who have fallen ill while travelling abroad or while living with people who have been abroad, and as they are no longer good for anything abroad, they come back home to sow their dirty contagious diseases all over Lower Brittany."¹⁷ Other images are his brother's zealous maintenance of his weapons and military dress at the barracks ("He was a most clean, neat and stylish man. His gloved hands were as white as snow"),¹⁸ and the pure fountain water that purified the blood and allowed for growth ("Everywhere in your bosom there are fountains of clear, drinkable, healthy water. By drinking it and eating food made from it and the grain grown on your land, you keep your blood clean and pure")¹⁹ Finally, there are the rules of personal hygiene and cleanliness of the house present at the very end of the work, concluding the series of remedies: "Let us always keep our body, our clothes, our house and everything around us clean. I do not say pretty, but clean and proper, according to our condition."²⁰

One of the motivations of Julien Godest's writing is the fight against the ignorance of his contemporaries of the same social condition. In the field of health, he states that "in the countryside, it is only ignorance, indolence, imprudence and lack of protection that make people sick,"²¹ and he goes on to say that one must "know what to eat and what to drink, know what to do to keep diseases away from us. In a word, know the rules of health. This is important science to cure ourselves of diseases before they really affect us."²² For this poor farmer, animal health is also very important because the family's survival depends on it: "In the countryside, 90% of the animals that die do so because people are careless when they should be giving their animals remedies. There is no point in treating them too late, it's a waste of energy and money."²³ In support of his argument, he quotes the proverbial words of a scientist whom he does not name: "Ignorance kills more people than wars."²⁴

The presence of medicinal remedies in Julien Godest's biographical and autobiographical text can be explained by the common thread running through all of his writing: how to lead an exemplary Christian life. The aim for him is to provide his potential readership²⁵ with models of exemplarity: he finds them in his brother and in himself, he expresses them in prose and song, and, in this exemplary way of life, health and medicine play a complementary role for the purity of the soul. Although a large number of the remedies on display have their source in a bilingual newspaper of the very end of the 20th century – which testifies to the non-hermetic character of Breton oral culture, and the attempts of the local elites to spread methods of improving agriculture and hygiene at the end of the 19th century – the whole is nevertheless characterised by a peasant pharmacopoeia. The things that matter are: the use of the immediate environment to care for humans and animals free, or almost free, of charge; the method of conservation for administration all year round; the control of ailments and herbs to prevent rather than cure; etc. Julien Godest's text is, in its entirety, a rare testimony to a vision of the world that had long since disappeared elsewhere. The thinking set out in the text can be seen as an extraordinary witness of a past era, since access to the culture of the lower classes very often comes up against the scarcity of sources. Godest's text offers an unfiltered access to this unique expression, unmediated by the dominant culture.

Notes

¹ Julien Godest, *Envorenou ar barz Juluen Godest / Les souvenirs du bardes Julien Godest*, text established, translated and introduced by Nelly Blanchard, Brest, CRBC, coll. Tal-ha-Tal, 2020.

² The notebook (21 cm x 29.7 cm) is stored under the number “44 J 37” in Quimper at the Archives Départementales du Finistère.

³ In the song ‘*Gwers war jujet ar bars poblus Godest ha pesort bue a rene he dadou*’ [Song about the popular bard Godest and the way of life of his ancestors].

⁴ It could have been the *An ABK, pe kenteliou bêrr hak eas eoit deski lenn brezonek en nebeudik amzer* by Pastor John Jenkins (Morlaix, Ledan, 1835), the *An ABC pe Qenta Leur dre ar Cn T[anguy] ar Yaouanc [Lejeune]* (Brest, Gauchlet, then Lefournier, Year 9) or the *Faeçoun neves evit desqui lenn e ber amzer gant ma vezo heuliet ar brononciation naturel eus al lizerennou* [New method for learning to read in a short time, as long as one follows the natural pronunciation of the letters], inspired by the Jacotot method and written by Yves Poullaouëc.

⁵ Notably, devotional books and surprisingly an astronomy book: Paul Le Breton, *Studi var an astrou*, Brest, Lefournier, 1848 (on this almost unknown work, see Nelly Blanchard, “*Studi var an astrou* (1848): first scientific text in the Breton

language. A Breton Enlightenment?" *Proceedings of the Harvard Celtic Colloquium (PHCC)*, volume 39, 2019, Harvard University, Boston (USA), 2021, p. 53-71.

⁶ This term was only used from 1912 onwards (François Jaffrennou, *Ganedigez eun emzao. La genèse d'un mouvement*, Carhaix, Imprimerie du Peuple, 1912).

⁷ Combism refers to the secularism embodied by Émile Combes, at the origin of the French law of separation of Church and State in 1905.

⁸ Two paragraphs are devoted to general considerations on health.

⁹ One of the remedies concerns animals in general.

¹⁰ In particular, he mentions the Spanish parasite, of which he gives such a horrid description and for which I have not found an equivalent. There are two possible interpretations of this disease. Firstly, since the spread of deworming for horses after the Second World War, certain diseases, such as this one, have disappeared. Secondly, it could be a legend invented to justify the practice of tail-docking.

¹¹ Remedy No. 63.

¹² On the history of the movement to defend Brittany, see, for example, Michel Nicolas, *Histoire du mouvement breton*, Paris, Syros, 1982.

¹³ The Welsh neo-bardic gathering.

¹⁴ Remedy No. 419 (28 December 1912), No. 420 (4 January 1913), No. 421 (11 January 1913), No. 423 (25 January 1913), No. 429 (8 March 1913) and No. 431 (22 March 1913).

¹⁵ Julien Godest's *Memoirs*, p. 376-377

¹⁶ Julien Godest's *Memoirs*, p. 378-379.

¹⁷ Julien Godest's *Memoirs*, p. 142-143.

¹⁸ Julien Godest's *Memoirs*, p. 226-227.

¹⁹ Julien Godest's *Memoirs*, p. 136-137.

²⁰ Point No. 88, p. 746-747.

²¹ Remedy No. 24, p. 714-715.

²² Julien Godest's *Memoirs*, p. 744-745.

²³ Remedy No. 30, p. 716-717.

²⁴ Julien Godest's *Memoirs*, p. 746-747.

²⁵ This text remained unpublished until 2021. Only 10% of the manuscript had previously been published, after being edited by Jaffrennou in his journal *An Oaled* in 1929 (the remedies were not included).

HAPPY IN SPIRIT WHEN THEY SMOKE: TOBACCO AS AN EXPRESSION OF NATIVE AMERICAN MEDIANCES

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The relationship developed by Native American peoples with tobacco is old and complex, multifaceted and evolving, as it has taken place over a huge spatiotemporal scale, which became even broader after 1492. The discovery of America in 1492 can be considered as the discovery of a new world, from both the European and indigenous perspectives. It also meant the discovery of a new ‘herb’: tobacco. This plant can be included among the numerous endemic staples that have been massively consumed throughout time and space. In less than one century after its discovery, tobacco began to be grown and/or consumed all over the world. It can therefore be assessed as a product – even *the* product – that made the whole new world, insofar as the world became globalised once and for all. Tobacco subsequently appears as the fulcrum that triggered and hastened the definitive unification of the world, which gave humans a new sense of ‘mediance’. The latter concept must be understood as ‘the sense of a milieu’ permeated by human subjectivity, a ‘dynamic coupling’ and a ‘mutual adequacy’ of a society with its environment, and a way of being and living ecologically, technologically and symbolically in a particular milieu with other beings, to summarise the idea developed by the French geographer and philosopher Augustin Berque who coined this neologism.¹ This new sense of mediance informed by tobacco is explored here in a three-dimensional approach. First, the geographical and commercial unification generated by the spread of tobacco from America to the rest of the world by Europeans is investigated. We will then see how tobacco is not only a commodity exploited to make money, but also how its exchange has the power to create links and bind humans together, either between Native Americans and Europeans, or among Native Americans themselves.

This interpersonal dimension is further expanded by many Native cultures to interrelationships between humans with supernatural powers and deities, endowing the sense of mediance with a deep spiritual and religious dimension; in this context, it stands as a timeless mediance as it was established from time immemorial during the early days of creation. On the contrary, the unification of the world through tobacco is just 500 years old.

A new *yerva* for a new mediance

The myth of the discovery of the Americas by the Genoese sailor is still perpetuated by the celebration of “Columbus Day”, albeit this special day has been more overtly criticised in recent years and has become an increasingly divisive issue all over the continent. Nevertheless, it is in Columbus’s travel log (as transcribed by Bartolome de las Casas in the 1530s) that the first mention of tobacco and its use by Native Americans can be found. As early as 15 October 1492, he mentions “a single man in a raft” who had “some dried leaves which must be in high value among them, for they had already offered me some at San Salvador.”² Three weeks later, there is the first allusion to tobacco as a “herb” that is burned and whose smoke is used: “The two Christians [Rodrigo de Xerez and Luis de Torres, who had been sent as scouts to present-day Cuba] came across a lot of people who went to their villages, men and women, with a firebrand in their hand and herbs [*yervas*] to take their aromatic smokes they were accustomed to.”³ In his commentary, Las Casas further details how the Natives of Cuba (Arawaks or Tainos) smoked *tabaco*; he also offers different perspectives on the potential effects of this newfound herb:

always the men with a brand in their hands and certain herbs to take their aromatic smoke, which are dry herbs placed in a certain leaf, dry as well [...] and having lighted one end of it, they suck or absorb or inhale that smoke with which they soothe their bodies and as if drunk, and they say that in that way they don’t feel tiredness. They call these muskets *tabacos*. The Spaniards I knew in this island of Española who were accustomed to take them, who were told off and told that it was a vice, replied that it was not in their power to give it up; I do not know which taste or benefit they found in it.⁴

In the middle of the 16th century, two French travellers gave similar accounts of the widespread use and effects of tobacco among two different indigenous peoples: Jacques Cartier for the Iroquois (Haudenosaunee) of Hochelaga (Montréal) in *Bref récit et succincte narration de la navigation faite en 1535 et 1536*, and André Thévet for the Tupinambas of Brazil in

Les singularités de la France antarctique (1558). Both admit that they “experimented” smoking tobacco. Cartier reports the taste (“as if some pepper powder had been put into” the mouth, “so hot it is”), whereas Thévet testifies to its psychic effects: to unaccustomed people such as him, smoking is likely to cause such “sweats and weaknesses” that it can make them pass out.

From the outset, tobacco was definitely identified as a “herb”; Cartier and Thévet used that term themselves, as did many other early travellers, witnesses or writers from different European countries in the 16th and 17th centuries, such as Jean Nicot de Villemain. The scientific name of tobacco, *nicotiana*, which was used as early as the 1560s in botanical studies all over Europe, is derived from Nicot’s name. Carl von Linné gave it a universal consecration in his classifications, *Critica Botanica* (1737) and *Species Plantarum* (1753).

The Swedish scientist distinguishes two main species: *Nicotiana Rustica* and *Nicotiana Tabacum*. This classification confirmed what Jean de Léry guessed in 1578 in his *Histoire d’un voyage fait en la terre du Brésil*: that the species introduced in Europe by Thévet and Nicot were two different plants though belonging to the same family (*Solanaceae*, alongside tomato, potato and eggplant) and genus (*Nicotiana*), and being two forms of domesticated tobacco grown for centuries by the Native Americans. Indeed, Nicot spread the subgenus *Rustica* (with a high level of nicotine and quite harsh to smoke, used as traditional tobacco by lots of Native peoples of North America) from seeds from Florida, whereas Thévet carried back the subgenus *Tabacum* (containing less nicotine and with a milder taste, mainly used in South America). According to Léry, only the latter can answer to the name ‘real *Petum*’, not the ‘Necocienne.’ The distinction is important as *Tabacum* became, and still is, the commercial species used in international trade.

The English explorer Walter Raleigh promoted tobacco (possibly *Rustica* from Virginia) to Queen Elizabeth I and her court in the late 16th century, but *Tabacum* was particularly popularised in the British Empire by an English settler who married the famous Powhatan woman Pocahontas in 1614: John Rolfe. He was aware that the tobacco produced by the British settlers of Virginia from the local *Rustica* species was too harsh to compete with the tobacco produced by the Portuguese and the Spanish, which was massively smoked in England and highly taxed by the Crown. In 1612, he decided to plant seeds of the *Tabacum* species coming from the Orinoco region of Venezuela. It was an instant success. The amount

sent to England soared from 2,300 pounds in 1617 to 3 million pounds in 1638. In 1680, 25 million pounds of *Tabacum* from Virginia were sold in Europe.⁵ Tobacco thus became the major cash crop in Virginia, and one of the major cultigens in other colonies such as Maryland and the Carolinas.

These figures hint at how people, at all levels of society, quickly became infatuated with the consumption of a herb, either by chewing, sniffing or smoking it. Not only Europe but the whole world, including Asia and Africa, started consuming and/or producing tobacco in less than two centuries. No country was spared the loss of its “pulmonary independence”⁶ by the *Tabacum* juggernaut. At the beginning of the 19th century, Louis-Alexandre Arvers wrote in his medical Ph.D. dissertation that tobacco “seduced all the nations, and spread from America as far as Japan. [...] It is now fashionable among almost all the civilized peoples on earth.”⁷ Arvers also wondered how this plant had acquired such worldwide fame and universal consumption in spite of its toxicity.

Even the earliest actions, such as violent measures taken by some states (for example, those taken by Tsar Mikhaïl I in Russia or by Amurath IV in Turkey, or even by the Catholic Church), that targeted smokers and/or prohibited tobacco sales, and the many caveats that denounced tobacco as a moral vice or a danger for health as early as the beginning of the 17th century, proved to be ineffective at curbing the diffusion and explosion of tobacco consumption. Just one year after he became king of Great Britain, James I published a scathing indictment of tobacco, *A Counter-blast to Tobacco*. In this 19-page booklet, he anathematised the “foolish, [...] inconsiderate and childish affection” for “a Noveltie” which was no more than a “vile”, “loathsome”, “filthie”, “venomous”, “stinking”, “savage”, “sinneful and shamefull” “custome” originally perpetrated by “barbarous, [...] wilde, godlesse, and slavish *Indians*.” Denouncing how harmful taking tobacco could be to health, James Stuart condemned the deceitful belief in the medicinal virtue of what had become a “common herbe”. He goes so far as recognising that tobacco may have been used by “the pockie” Indians to find relief from smallpox symptoms, but that the staple had lost any curative power because it had been so much “refined [...] here in *England*.” James’s pamphlet sounds like a response to a previous book first published in 1583 in Latin (*De herba panacea*, translated into English in 1659), which eulogised the medicinal power of tobacco as early as its telling title: Giles Everard’s *Panacea, or, The universal medicine being a discovery of the wonderful vertues of tobacco taken in a pipe: with its operation and use both in physick and chyrurgery*. In his introductory *Epistle*, the Dutch physician asserts that “there is no one kind of foreig

Commodities that yields greater advantage to the publick”; he then adds that it was God’s intention and providence that “this herb” be discovered by the Christians “amongst the Indians.” Everard was later echoed in France when a so-called “Sieur Baillard” posited that tobacco was the “greatest treasure” discovered in America, asserting that Nature had been unfair to withhold such a “miracle” only for “the Barbarians & the Savages.”⁸

Baillard and Everard were far from being alone in this rhapsodising choir of “tobaccolatry”⁹ emphasising the benefits of tobacco on health, which seems to have contributed to the quick spread of its cultivation and consumption. King James was not wrong when he mentioned a medical use of tobacco by Native Americans; they indeed used tobacco for recreational, spiritual, religious and medicinal reasons. But they were not completely unaware of its potential dangers: as the Hidatsa woman Mixi’diwiac (Buffalo Bird Woman) reported at the beginning of the 20th century, the young men of her tribe were deterred from smoking because it could “injure their lungs” and make them “short of breath”.¹⁰

Generally speaking, Native Americans acknowledged tobacco as “powerful”, which means that it was not inherently either good or bad, but could be either good or bad depending on the way it was coped with. This ambivalent dimension of tobacco had also been noticed by early writers. For instance, Everard declared that “Tobacco is a plant of God’s making, and it hath many admirable faculties in it [...] yet there is some reason to suspect, that there hath been much of the cunning of the Devil” who deceived the Native Americans and thought he could “revenge himself on the *Christians* [who strove to convert the heathen Natives], by teaching them to take Tobacco.”¹¹ The German physician Johann Neander is credited with a similar idea expressed in 1622 about tobacco: “a plant of God’s own making, but the devil likewise involved; excesses ruined both mind and body.”¹² The year of 1622 corresponds to when the Powhatans of Virginia led a coordinated attack on the settlers, killing around 350 of them. The outbreak of the war was motivated by the continuous territorial expansion of the settlers who ceaselessly needed more land, first to grow tobacco which requires vast expanses of land as it quickly exhausts the soil. Tobacco also requires a massive labour force, initially furnished by indentured servants, but then quickly supplied by African slaves.

Through the development of *Tabacum*, the English settlers therefore created a new ‘mediance’ in Virginia, and it had many repercussions on the world economy, health and history. Many of the founding fathers of

the USA (like Washington and Jefferson) were slave owners and tobacco planters, and were amongst those who protested against the taxes imposed on American products, including tobacco, by the British Crown. The staple remained a cash crop and cash dispenser for the new nation after it gained its independence, facing an ever-increasing worldwide demand for tobacco. Many improvements in the processes of preparing tobacco (like the ‘flue-curing’ smokeless drying method in 1839, the mechanical production of cigarettes in the 1880s and the addition of chemical substances) made it sweeter and simpler to smoke, but also more addictive and toxic. Today, about one billion people are considered addicted to tobacco and “more than 8 million people a year” die from the consequences of tobacco consumption.¹³ In 1699, Louis XIV’s head doctor Guy-Crescent Fagon saw tobacco as a fearful “poison” and compared opening one’s tobacco box to opening Pandora’s box; he added that, with the havoc created by smoking, conquered America had found a way to avenge herself on her conquerors.¹⁴

Yet, Native people of North America were not left unscathed by the diffusion of commercial *Tabacum* by Euro-American settlers and retailers; they can even be considered as triple losers in the process: they lost their land as the settlers demanded more and more, including land to expand the cultivation of tobacco; they lost the control of a traditional product culturally misappropriated by the newcomers who turned it into a mere commercial commodity; and they lost their “pulmonary independence” and their health by becoming addicted to a new species of tobacco and new practices of ingestion.

Today’s rates of consumption of tobacco among Native Americans are still much higher than for any other ethnic group in the USA and Canada, though some differences from one tribe or area to another must be taken into account. These figures of prevalence may explain why tobacco manufacturers and e-cig laboratories have made Native Americans one of their privileged targets. Tobacco was indeed important and central in Native societies in their definition of particular forms of mediance. It helped create links among the people intra- and inter-tribally, and also served to set up patterns of relationships between Native Americans and the newcomers.

Tobacco as the fulcrum of a social mediance

The discovery and commodification of tobacco changed the face and lungs of the world, and participated in creating a new worldwide mediance that

hinged around a herb with such an “omnipotent” power, to quote King James’s famous phrase. One of its powers was to create links between human beings. The way that tobacco, in the form of *Nicotiana Tabacum*, was introduced and spread among Native societies of North America by European newcomers had various short- and long-term effects on their ways of life and relationships to a herb originally considered with awe. Tobacco continued to play a paradigmatic role of social broker or relationship facilitator, becoming the exchange product that facilitated the contact and created a new form of mediance between the Natives and the Euro-Americans.

The French, and especially the French fur traders operating from New France (Canada) or Louisiana, played a seminal role in the diffusion of *Tabacum* among Native Americans. The French imported millions of tons of *Tabacum* from South America to meet an ever-growing demand in France and to trade with Native Americans, who relished consuming this milder and secular form of tobacco. France even started to grow tobacco along the Missouri and Mississippi rivers (part of the extensive French Louisiana) to supply its fur traders. This type of tobacco was nicknamed “hairy tobacco” as it was distributed by European people usually considered as “hairy” by Native people and as it was a means to trade for furs. The British and American fur traders also used *Tabacum* as a currency or a tool to ease their relationships with the Native populations. Every trading session was supposed to open with gifts of *Tabacum* given to the Natives, who paid careful attention to the quality of tobacco received. For instance, Joseph Winter reminds us that in “the mid 1800s the Hudson’s Bay Company tried to save money by switching to lower-grade US tobacco, but the Indians considered it unacceptable, so the company had to go back to the better Brazilian product.” Winter also notices that the Iroquois, skilful cultivators of *Rustica*, doted on the *Tabacum* offered by the British and the Dutch, and that Canadian Natives were ready in the early 17th century to paddle long distances up to Tadoussac on the Saint Lawrence River just to get access to *Tabacum*.¹⁵ Some Plains tribes, like the Cheyennes or the Omahas, became so used to obtaining “hairy tobacco” that they sacrificed the cultivation of their own tobacco fields. The diffusion of *Tabacum* reached a fairly broad scale, as Basque sailors and Danish settlers used it to trade with the Native inhabitants of Newfoundland and Greenland at the end of the 16th century.

Tobacco therefore quickly became an integral part of the relationships and trade between the Native Americans and the newcomers: it served to implement trust and display friendliness. A friendly relationship could

further be sealed by smoking tobacco in one of the “mo[st] mysterious or respected” devices by the Natives, the “Calumet” or “*pipe pour petuner*” [pipe to smoke] as Father Marquette explained in the 1670s: smoking in this way was a sign of friendship and a calumet was among one of the best presents that could be given. He himself received one from the Illinois “to serve as a safeguard among all the Nations through whom I had to pass during my voyage” because:

Less honor is paid to the Crowns and scepters of Kings than the Savages bestow upon this. It seems to be the God of peace and war, the Arbitrer of life and death. It has to be carried upon one’s person, and displayed, to enable one to walk safely through the midst of Enemies – who, in the hottest of the Fight, lay down Their arms when it is shown. [...] They also use it to put an end to Their disputes, to strengthen Their alliances, and to speak to Strangers.¹⁶

Marquette later confesses how showing the calumet offered by the Illinois helped him avoid “great danger” and be welcomed in a friendly way by Native people he met on his way. The French missionary’s writings thus highlight how tobacco helped provide a sense of balance and stability in a fast-changing milieu, and hence lead to the emergence of a new mediance in a new world.

Three factors may explain why tobacco, and particularly smoking tobacco in a calumet, was so important in establishing relationships on a fair ground between the Natives and the newcomers. To begin with, the latter were first and foremost men, and tobacco often pertained to a man’s field of occupation, though not exclusively. Then, the unexpected appearance of Europeans might have led the Native Americans to consider them as some sort of gods or supernatural beings, at least at the beginning, as it occurred to Francis Drake in 1579 on the Californian coast:

there was gathered a great assembly of men, women, and children, [...] who came now the second time unto us, bringing with them, as before had been done, feathers and bagges of *Tobàh* [tobacco] for presents, or rather indeed for sacrifices, upon this perswasion that we were gods.¹⁷

The last reason is that tobacco, as well as the calumet, already played an important role in social relationships. Endemic to America, tobacco has a long history among Native people who have smoked or ingested many varieties of *nicotiana* and other plants in various and changing ways for thousands of years. Two recent studies revealed that the consumption of *nicotiana* in North America was much older than previously assessed, probably dating back to the 13th century BC, around the Snake and

Columbia rivers (Washington, on the Nez Perce-Numipi territory), and to the 16th century BC in Alabama (Flint River site).¹⁸

Many different species of *nicotiana* were raised and/or collected in the wild by Native Americans for hundreds of years before the spread of “hairy tobacco”, such as: *rustica* (especially grown in the eastern woodlands and the south-west), *quadrivalvis* (cultivated by Plains Indian tribes, in California and on the north-west coast), *attenuata* (found in ancient Anasazi sites, raised in British Columbia, still gathered by the Pueblos in the south-west), *trygonophylla* (“desert tobacco”) and *glauca* (“tree tobacco”). Some tribes, especially in California, even used several species, like the Karoks (*quadrivalvis* and *attenuata*) and the Cahuillas (who used five species of *nicotiana*), or in the Plains where the Crows and the Pawnees raised two species of *quadrivalvis*. It happened that some tribes did not smoke *nicotiana* but replaced the “precious narcotic”¹⁹ by other botanicals, such as leaves of *omaksekakasin* (pipsissewa or *chimaphila umbellata*) for the Blackfoot, bearberry (*arctostaphylos uva-ursi*, called “mountain tobacco” by the Jicarilla Apaches) or red willow bark (*cornus stolonifera*); the latter is known as *kinnikinnick*, an Anishnaabe (Ojibwa) word meaning “mixture”. The Lakotas (Sioux) and the Blackfoot also smoked red willow bark, calling it *čanšaša* and *kakasin* respectively. Sometimes, *nicotiana* was mixed with those plants, or with other substances like red dogwood (or *cornus amomum*, for the Pawnees), sumac (for the Pawnees, the Leni-Lenape, the Iroquois and the Kiowas) or lime (for the Tubatulabal and Yokuts, the Haidas and Tlingits).

Virtually all North American people had access to one or more species of *nicotiana*, either directly or indirectly through trade. Even those who lived in regions where the climate did not allow tobacco to grow could obtain it through exchanges. For example, northern Algonquian tribes (such as the Ottawas, Montagnais-Naskapis and Attickameks) obtained tobacco from the Hurons, who themselves imported great quantities of the herb from the Khionontateron whose place in the tobacco trade was so important that the French called them the *Petuns* (or Tobacco nation). In the Plains, the Arikaras (an offshoot of the Skiri Pawnees) played a central role in the diffusion of tobacco (*nicotiana quadrivalvis* species). They traded it with many other Plains tribes (Kiowas, Comanches, Arapahos, etc.), including some groups of Lakotas who “highly” prized and cherished it²⁰; they passed it to the Mandans and Hidatsas, who, afterward, traded it with other tribes (Assiniboins, Crees, Kiowas, Cheyennes, etc.), even as far as the Pacific coast. In California, the Tubatulabal, who did not raise but encouraged the growth of two wild species of *nicotiana* (*attenuata* and

bigelovii), are known for their expeditions to the Pacific coast in order to obtain shell disks in exchange for tobacco.²¹

Tobacco was not only a trade product in combination with the pipe, but it also stood as one of the most paramount “mediating agents”²² in the social sphere, either for peaceful or hostile purposes. Among the Plains tribes, men agreed to join a war expedition by smoking the pipe that was offered to them, as was the custom among the Lakotas, the Cheyennes and the Pawnees. Two Leggings and Plenty Coups notes that, for the Crows, the war leader was also the pipe holder. Among the Omahas, the *ni'kapashna* gens were in charge of the war pipes, whereas the *thi'xia* gens had to take care of the peace pipe, which was used in the *Wa'wan* (adoption) ceremony.²³ Hehaka Sapa (Black Elk) explains that an Oglala boy who joined a war party for the first time had to carry a medicine pipe filled with kinnikinnick and sealed with fat, and the boy was compelled to smoke it as a “thank-offering” should the fight be won.²⁴ The Pawnee warriors used to put tobacco in their war bundles in order to ask for protection from the gods.

However, tobacco and the pipe were also key tools in making peace and friendship. Black Elk reports that “when humans smoked the pipe together they bound themselves in recognizing relationships that carried them with obligations for peace, friendship, and cooperation.”²⁵ He states that such a peaceful relationship was once established by Matohoshila (Bear Boy) with the Arikaras, thanks to smoking tobacco in the sacred pipe through the *hunkapi* (adoption rite).²⁶ In the 1840s, a Blackfoot chief refused to kill Crow guests even though they had fresh Blackfoot scalps in their possession because he had smoked the peace pipe with them before the ghastly discovery. In 1874, the Pawnees, being removed from their ancestral territory in Nebraska, made peace by smoking the pipe with their former enemies the Osages and the Cheyennes who were already settled in Oklahoma.²⁷ Among the Arikaras, a pipe filled with tobacco could be formally offered to someone who had been crossed as a form of supplication to be reconciled, and this was generally accepted. Tobacco was in itself a sacred product for the Arikaras as it was part of the three elements (with meat and corn) offered as tokens of respect to honour someone.²⁸ Among the Pawnees, it was the custom for the host “being visited to present all the smokes” to his visitors, as a Kitkehahki informant told Grinnell.²⁹ The Kickapoos also had a special tobacco to be offered as a gift to other nations who came to visit.³⁰ And for the Karoks, if they did not know the calumet or “pipe of peace”, smoking the pipe with other people was considered as “an embrace of friendship.”³¹

Smoking the pipe was not an innocent act bereft of possible consequences; it was a sacred act, almost a “burden”, to use the word put forward by Walter McClintock who spent four years with the Blackfoot in the late 1890s.³² Grinnell compares smoking to a solemn oath which “many tribes of Indians” reckoned as “a sacred ceremony”; he adds that a man gambled his life on smoking as death would fatally occur had he lied while smoking.³³

Smoking the pipe was thus a way of ratifying and solemnising one’s word, a treaty, or a relationship, as is done in the Oglala *hunkapi* rite. This way of adopting someone through a ceremony known as the Calumet Ceremony is particularly famous for the Pawnees, as thoroughly described by an old Chaui priest (*ku’rahu*) called Tahirussawichi at the turn of the 19th and 20th centuries. He explains that the *Ruktaraiwariius* (or *Hako*) ceremony was conceived as a “prayer for children, in order that the tribe may increase and be strong; and also that the people may have long life, enjoy plenty, and be happy and at peace.”³⁴ However, the ceremony had a “twofold” purpose, both an individual and a collective one:

First, to benefit certain individuals [with] the promise of children, long life, and plenty; second; to affect the social relations of those who took part in it, by establishing a bond between two distinct groups of persons, belonging to different clans, gentes, or tribes, which was to insure between them friendship and peace.³⁵

It was therefore not surprising that “some Pawnees, particularly the leading men, had ‘brothers’ in nearby tribes [of Nebraska] such as the Poncas, Otoes and Omahas” as Martha Blaine indicates.³⁶ If two imposing, neatly decorated pipe stems stood at the core of the ritual, tobacco was not absent. Most significant was its role as intermediary between the petitioning father and his adoptive son: indeed, the four messengers between the two people were called *rawiska’ rarahoru* [“tobacco bearers” or, literally, “one who walks carrying the tobacco”³⁷].

Tobacco and the pipe played major roles in binding human beings together before and after colonisation. It contributed to establishing and validating forms of mediation on social grounds. Pre-colonial traditional and new post-colonial patterns of relationships could be opened, consecrated and cultivated, thanks to this herb.

Large networks of circulation of different species of tobacco among Native Americans pre-dated the Europeans who, to some extent, took advantage of them to spread their own *Tabacum*. The latter species was

quickly adopted because it was plentiful, easier to smoke than Native species (especially *Rustica*), and, most importantly, it was not associated with a spiritual, sacred or religious dimension as was often the case with traditional species. The next section highlights this dimension of tobacco for Native peoples, and how it was embedded in the expression of particular worldviews and expressed specific forms of spiritual mediance.

A divine herb for a spiritual mediance

Tobacco was not a herb that Native societies could afford to forgo as it was vital for their existence and survival: it defined their place in the universe, and their relationships with the powerful forces and deities that were everywhere around them. Tobacco, either *nicotiana* or other herbs, either smoked or not, and whether associated with the pipe or not, imparted the Native forms of mediance with a spiritual and religious dimension.

The Crows (Apsaroke), a Plains tribe from Wyoming and Montana, present an interesting case in point to introduce and exemplify the way tobacco was, and still is, regarded with a particular awe and is worshipped as a sacred herb by Native Americans.

The Crows had two sorts of tobacco: one that could be smoked, *nicotiana quadrivalvis quadrivalvis*, called *ōp ha'tskite* or “tall tobacco”; and another that was too sacred to be smoked, *nicotiana quadrivalvis multivalvis*, called *ōp pu'mite* or *itchichea* or “short tobacco”. When they became a typical Plains tribe after their separation from the Hidatsas, the Crows forsook all forms of cultivation except tobacco, which was and is still cultivated by the Tobacco Society (called *bacu'sua* or “soaking”, also known as the Beaver Dance), whose members were men and women adopted by previous members, and whose adoption meant a sort of “rebirth” according to Agnes Yellowtail.³⁸ They reckoned the herb was vital for their survival and continuation. It was considered as a real “person” and was originally transmitted during the creation of the world by a powerful creator (whose identity and name varies according to the narrators). Fred Voget summarises the story this way: “First Worker also gave tobacco to the first clay man he made.”³⁹ According to Medicine Crow, it was Old Man Coyote (*isa'ka-watè*) and the Sun (who organised the Tobacco Society by adopting its first member) who gave Tobacco (from the stars) to the Crows alongside with a specific message:

It is the stars above you that have assumed this form, and they will take care of you. [...] take care of it and it will be the means of your living. [...] This plant shall be their mainstay, it shall be everything to them.⁴⁰

Lowie makes clear that the Tobacco Society and tobacco planting were made for the “general welfare” of the community, with the power to ensure a long life and an abundance of resources. However, as Thomas Yellowtail stresses from an eschatological perspective, if the future of the people depends on the availability and reproduction capacity of the plant, so too does their disappearance: “The Crow Indian prophecy says that when this plant is gone, when it is not planted and harvested so that there is no reproduction of the seed, then finally it will be the end of time and the world will end.” Yellowtail thought that the end of the world was close when he uttered his statement in the early 1980s, but Joseph Medicine Crow assessed that the Tobacco Society was “still quite strong” in the 1990s.⁴¹

As far as the concept of mediance is concerned, tobacco and the Tobacco Society reflect the life principle that is at the core of the Crow worldview: interconnectedness, “a world in which all entities (human, natural, and spiritual) are unified and interconnected; the relationships among these deities are characterized by reciprocity.”⁴²

Tobacco that was smoked was also important for the Crows, and played a critical role in their relationships with the deities and other powers that surrounded them. When burnt, tobacco released “its soul-power” which drifted upward as “a smoke prayer”, Voget explains.⁴³ To smoke with a pipe is probably the most appropriate way to pray, but it is the smoke that really matters, as Yellowtail explains:

The smoke represents the path of our prayers up to the heavens and to all directions of the wind. [...] The pipe is the sacred form that was given to us for our prayers, but it is the smoke that offers the prayers. It is the tobacco that is changed to smoke, and the smoke that carries our prayers to the Four Winds and Acbadadea. It is important to offer prayers correctly with smoke.⁴⁴

It does not even really matter if the prayer is sent with tobacco from a cigarette. What is important is that the content of the prayers ought to be chosen carefully because words also contain a “soul-power” and are “endowed with power that can affect the context in which they are expressed.”⁴⁵ With the Apsaroke, we can therefore see how tobacco can inform a specific mediance, insofar as it represents the fulcrum of the

Crow universe, the herb around which their worldview hinges, and thanks to which all the elements and inhabitants of the universe are related and interconnected.

Many of the ideas related to the relationship with tobacco and the role imparted to the herb in Crow society and their *bacu'sua* can be found in a great number of other Native cultures. For instance, tobacco is almost always considered as a gift from a divine power: the Supreme Deity Tirawa for the Pawnees, the Male Buffalo at the behest of the Creator for the Hidatsa, the Medicine Beaver for the Blackfoot, Raven for the Haidas and the Tlingits, Kitzihiat or the Great Spirit for the Kickapoos, the ancestors *ikxareyavs* for the Karoks, the *wagas* or the original white race for the Yuroks, Umna'ah (the Creator) or Mukat (a cultural hero) for the Cahuillas, Aataensic (Sky Woman/Earth Mother) for the Iroquois, the cultural hero Manapus for the Menominee and Wenebojo for the Ojibwas (as the creator of kinnikinnick), and Hactcin Turkey for the Jicarilla Apaches. For the Navajos, the cosmogonic acts could not have been carried out by the gods without the help of *dzil nat'oh* ("mountain tobacco" or *nicotiana attenuata*), which is considered as one of the four holy cosmological plants that stands at one cardinal direction of the universe (North).

Tobacco is therefore used and smoked in most of the Navajo rituals, even commercial tobacco when nothing else is available, because it is still considered to come from a sacred plant. The Navajos consider that it is not the plant or smoking that are intrinsically harmful, but the perverse use of them.⁴⁶

Tobacco was indeed recognised as the most powerful herb to be used as an offering to the spirits and deities. When burnt, the smoke was considered as a direct means of communication with them, as many tribes assert (Pawnees, Sioux, Crows, Jicarilla Apaches, Navajos, Cherokees, Iroquois, Yuroks and Foxes, for instance). The supernatural forces were fond of, or often crazy about, tobacco and sometimes addicted to it. The Arikaras explain that the spirits were always looking for one way or another to obtain tobacco, which did not exist in the spirit world; so they "frequently beseeched a pitiful young man for tobacco and in return conferred power upon him" and this aspect contributes to explain "why the smoke offering was integral to all ritual activity in which spirits were involved", as Douglas Parks summarises.⁴⁷ The *manitous* of the Foxes and Potawatomis longed for tobacco, but they could only have access to it through humans. Tobacco also appears as a product favoured by the spirits in the Pueblo

and Chumash religions, as well as in the Iroquois spirituality where the spirits survive thanks to offerings of corn and tobacco made by the humans who are therefore positively rewarded, and in Haida myths where they are depicted bribing “each other with tobacco seeds”.⁴⁸ Tobacco was also often offered to the spirits of plants or trees (when they were to be plucked or cut, for instance), and to hunted animals, as in this Karok prayer: “Mountain, I will feed thee this tobacco. [...] I am about to obtain thy best child.”⁴⁹ The Pawnees had many annual renewal rites. One of them consisted in replacing *atira* (the sacred ear of corn) in its holy bundle: smoke was offered to it, and the attending people blew their breath on it, thus symbolising “the new life in the world”; another was to offer tobacco smoke to the spirit of the animals during the White Beaver Ceremony – designed to revive the powers of hibernating animals – in order to make their spirits happy: “happy in spirit let them become when they smoke”.⁵⁰

The relationship established through tobacco between humans and the spirits and deities can thus be considered as a ‘win-win negotiation’ inasmuch as this henceforth famous catchphrase is defined as ‘mutual gains’ or “working to get the best deal possible for yourself while also working to ensure that your counterpart is satisfied”.⁵¹ The exchange benefited the supernatural power, the individual and, above all, the community, as stressed in the Crow example. Besides, the latter example illustrates how tobacco can be embedded in an eschatological perspective. This dimension is particularly salient in three north-western Californian tribes – the Yuroks, the Karoks and the Hupas – with their World Renewal Rites “in order to refix the world for another year”.⁵² Tobacco, especially when used and smoked by the *fatavennan* (medicine man or priest), is the essential, active product of the ceremony. When the Yurok priests offer and ingest it, it is “a symbol of the yearly transformation and rebirth of the whole creation”.⁵³ Without tobacco, the yearly ceremony could not be carried out, which would subsequently jeopardise the existence of the world. With tobacco, it can be held and it allows life to thrive in a “communion of interrelated forces”.⁵⁴

In the 1990s, the three Californian tribes initiated a movement back to the traditional uses of native tobacco in order to counter the health-impairing effects of commercial *Tabacum*, which turns addicted smokers into “walking ghosts”.⁵⁵ Many tribes, such as the Ojibwas or the Blackfoot, also strive to reclaim or reappropriate this typically Native herb in order to revalue the nature of it and its holiness, to highlight the spiritual dimension of smoking, and to re-establish the connection with the pervasive and powerful forces upon which human beings are dependent. Before being

used as a recreational, individual product (which was already the case in many tribes, especially for men, as among the Yuroks), Native tobacco was first and foremost used to define, establish and assert a ‘mediance’ understood as a ‘sense of a milieu’ or a dynamic relationship with the surrounding visible and invisible elements. Tobacco was not used and/or smoked for the sake of the simple pleasure of consuming it, but it was mostly used in collective, social, spiritual and religious contexts. The relationship with tobacco expressed by Native Americans therefore befits Gilles Deleuze’s concept of “desire”, according to which humans always desire something or someone in a set of elements (“*un ensemble*”) or an assemblage (“*un agencement*”), in a life context they are involved in and also tend to build.⁵⁶ Tobacco can be construed as a path jugged into different worlds, to paraphrase Harrington, in order to establish relations, often reciprocal and vital, with other people, whether they are humans, spirits or deities.

Tonio Sadik notes that, before the discovery of America, “the smoking of tobacco was a concept foreign to the rest of the world”.⁵⁷ The habit, however, quickly spread like a devastating virus whose damaging effects on the health of the world population are still tremendous. Echoing the warnings of many previous portentous studies, Dr. Arvers wondered in the 19th century how such a toxic plant might have met with such a success. Tobacco, with the nicotine it contains, is a highly addictive herb, and that is one of the reasons why Native Americans assessed it as “powerful” and being endowed with the power to convey both harmful and beneficent consequences. It is a product with a high added spiritual value, mainly used in collective and spiritual contexts. Tobacco is part of the process through which they define their ‘mediance’, through which they account for their existence, survival and possible disappearance. Today, if there is enthusiasm about reclaiming tobacco and going back to traditional ways of dealing with this herb, it is because Native Americans are aware that smoking rates are higher than average in their communities and that using ‘traditional tobacco’ may help to not only survive physically, but also spiritually in reasserting a Native American identity: “happy” in body but also “in spirit”.

Notes

¹ Berque has written a great deal of books and articles to explain the meaning and implications of mediance, which is a concept inspired by the notions of Jacob von Uexküll’s *umwelt* and Tetsuro Watsuji’s *fūdosei*. See, for instance, *Écoumène. Introduction à l’étude des milieux humains* (Paris, Belin, 2009 [1987]), *Médiance*,

de milieux en paysages (Montpellier, GIP Reclus, 1990), or *Poetics of the Earth: Natural History and Human History* (Milton Park and New York, Routledge, 2019 [2014]).

² Colón, Cristóbal, *Textos y documentos completos*, Edición de Consuelo Varela, Madrid, Alianza Editorial, 1995, p. 115, my translation.

³ *Ibid.*, p. 133, my translation.

⁴ *Ibid.*, note 66, p. 133, my translation.

⁵ Davey, Mike, “The European Tobacco Trade from the 15th to the 17th Centuries,” University of Minnesota Libraries, <https://www.lib.umn.edu/bell/tradeproducts/tobacco>.

⁶ This phrase is uttered by Mafalda, the heroine created by the Argentinian draftsman Quino, in *Le petit frère de Mafalda*, Grenoble, Éditions Glénat, 1983 (French printing), vol. 6, p. 25.

⁷ Arvers, Louis-Alexandre, *Essai sur le tabac*, Paris, Imprimerie de Didot jeune, 1815, p. 6-7 and 12; my translation.

⁸ Baillard, Sieur (or Jean Le Royer Prade), *Discours du tabac*, Paris, chez Jean Jombert, 1693 (1668), p. 125.

⁹ A translation of Didier Nourrisson’s “*tabacolâtrie*” (in *Histoire sociale du tabac*, Paris, Éditions Christian, 1999).

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¹¹ Everard, Giles, *Panacea*, London, printed for Simon Miller at the Star in St Paul’s Churchyard, 1659, n.p.

¹² Iohannem Neandrum Breamanum. *Tabacologia*. Leyden: Iuratis Academia Typographi, Officina Isaaci Elzevirii, 1622. The famous quote is, for instance, given by Grace Stewart, “A History of the Medicinal Use of Tobacco, 1492–1860,” *Medical History*, 1967, vol. 11, no. 3, p. 228-268.

¹³ Martinet, Yves, “*Préface*,” in Pierre Boisserie and Stéphane Brangier, *Cigarettes: le dossier sans filtre*, Paris, Dargaud, 2019, p. 2; World Health Organization, “Tobacco: Key facts,” 26 July 2019: <https://www.who.int/news-room/fact-sheets/detail/tobacco>.

¹⁴ Fagon, *L’Abus du tabac abrège-t-il la vie ?* quoted in Marc and Muriel Vigié, *L’herbe à Nicot. Amateurs de tabac, fermiers généraux et contrebandiers sous l’ancien régime*, Paris, Fayard, 1989, p. 43-44.

¹⁵ Winter, Joseph, *Tobacco use by Native North Americans: Sacred Smoke and Silent Killer*, Norman, University of Oklahoma Press, 2000, p. 14, 65, and 360.

¹⁶ Marquette, *Récit des voyages et des découvertes*, Albanie, Imprimerie de Weed, Parsons & Cie, 1855, p. 36-44 and 69-87; a bilingual edition was made by Reuben Thwaites, *The Jesuit Relations and Allied Documents. Travels and Explorations of the Jesuit Missionaries in New France*, Cleveland, The Burrows Brothers Company, 1900, p. 86-163.

¹⁷ Vaux, William (ed.), *The World Encompassed by Sir Francis Drake*, London, The Hakluyt Society, 1854, p. 122. The Natives mentioned were probably Costanoans.

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- ²⁰ Brown, Joseph E. (ed.), *The Sacred Pipe: Black Elk’s Account of the Seven Rites of the Oglala Sioux*, Norman and London, University of Oklahoma Press, 1953, p. 102-103.
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- ⁴⁵ Frey, *The World of the Crow Indians, op. cit.*, p. 163.
- ⁴⁶ Winter, *Tobacco use by Native North Americans op. cit.*, p. 273.
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THE CIRCULATION OF KNOWLEDGE ON MEDICINAL HERBS IN PARIS IN THE 18TH CENTURY

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As a medical elite, the Regent Doctors of the Faculty of Medicine of Paris were professional doctors benefitting from the privilege (which they shared with the *Médecins en Cour* [Court Doctors]) of practising in the French capital. They were the only ones to teach medicine within the Faculty of Paris, and to be members of the corporation of the Faculty of Medicine. Between 1707 and 1794, Paris counted, on average, 121 Regent Doctors practising private medicine each year.¹

As a subject required for their future professional practice, the '*matière médicale*' [medical material] was the study of remedies made using vegetable, mineral and animal ingredients, and subject to transformations. It was distinguished from 'natural history', a description of plants and their mediums, and 'botany', pertaining to the knowledge of plants, succulents and their virtues. According to the temperament and age of the patient, the doctors advised therapeutic cures in their prescriptions. Faithful to the Hippocratic doctrines and rejecting the principle of the specific existence of a single remedy, they had to know the virtues of each medicinal herb.² On the contrary, those who refused to conform to the rules of training and professional exercise enacted by the Faculty of Medicine of Paris were referred to by the doctors as "*charlatans*", or "empirical" or "illegal" practitioners.

The therapeutic field is investigated by historians who question the methods of recourse to various types of drugs, as in the case of the appropriation by Europeans of the practices of the colonies,³ the diffusion of domestic remedies⁴ and the role of the patient at the time of choosing a therapeutic cure.⁵ The circulation of knowledge on medicinal herbs is studied through the history of the scientific institutions. However, the

doctors dealt with the diffusion of this knowledge among their peers, other health professionals and patients, in a system mixing interrelationships, dependences, restrictions and challenges to powers, which could be medical, political (the role of the doctors in the acclimatisation of foreign plants), economic or scientific.

The *Tarif général des droits dus aux entrées de Paris sur les marchandises* [General Tariff of Fees Due on Merchandise Entering Paris]⁶ of 1781 points out the distinction between ‘plants’ and ‘herbs’, testifying to the circulation and appropriation of medical categories by non-professionals outside of the medical field. The medicinal herbs employed in pharmacy, or equipped with therapeutic virtues, (85.6% of the 208 taxed plants) were those of which all the parts were useful. On the contrary, medical succulents (slightly less than 8%) referred to plants of which only the shoot system parts (leaves, flowers, stems, etc.) were used. The other plants (less than 5%) were not classified. Each of these categories corresponded to a health professional: the doctor, who decided on the cure and wrote the medical receipts, the pharmacist, who made the remedies, and in four cases (almost 2%), the surgeon, for substances used in external remedies (applying to the body). If herbalists were quoted, it was as merchants of substances used in medicine. This chain of actors implied that each one, according to the expectations of their profession, was able to recognise and differentiate the plants, and know their medicinal properties.

But what were the criteria explaining the distribution of plant substances among these three actors? Which types of industrial relationships arose from this organisation? How did the patient, whose place is foreseen in the *Tarif* but whose role is not mentioned (as an intermediary, consuming the initial or processed product), receive the medicinal plant or herb? The *Tarif* provides some indications on the sources of the plants; only 13.4% of harvested products were imported. Does this small proportion testify to a weak integration of foreign plants in the French pharmacopeia or to economic reservations?

Available documentation, produced by doctors for various reasons (for experts, professors, members of erudite institutions, journalists) encourages one to wonder about the appropriation and circulation of knowledge on succulents and medicinal herbs by health professionals and the public. The additional information provided in the personal reports of doctors of botany, drawn from their inventories after their death and after publication, makes it possible to know the works compiled with the list of references and to distinguish specialisations in the field of botany. Thus, it is possible

to analyse the evolution of the knowledge of doctors on plants and the consequences on the division of labour among health professionals.

The doctor's obligation: to know the 'usual plants'

The manners and contents of the teaching of the "*matière médicale*" raised questions for the Regent Doctors. At the end of his first volume of the *Éléments de botanique* [Elements of Botany] of 1694, Doctor Joseph Pitton de Tournefort, in a pragmatic approach, defined botany as a science of the nomenclature allowing an inventory to be created of the plants that are useful for humans, thanks to observations. One of his disciples, Pierre Jean Baptiste Chomel, a professor of plants at the Faculty of Medicine of Paris, explained the use of medicinal herbs and made demonstrations (showing the various parts of them). In his *Abrégé de l'histoire des plantes usuelles* [Compendium of the History of Common Plants] (1712), Chomel insisted on the essential control of this knowledge by the doctors.⁷ Thus, he developed a teaching that was complementary to that given at the Faculty.

Chomel organised botanical demonstrations in his garden on Rue Neuve Notre-Dame-des-Champs. The plants were laid out in small squares according to their properties. The demonstrations were organised according to the seasons in order to observe the plants at each stage of their evolution. The doctor alternated the demonstrations "*sur la terre*" [on the ground] and the description of the dry parts and of some foreign plants. He was interested in all the states of the plant: fresh, dried, in decoction or infusion, whole or in powder form. It was a question of teaching a "practical botany" by indicating simple remedies obtained thanks to local plants. Chomel precisely indicated the part of the plant and its specific virtue, the amount and the way in which one should make use of it, and the negative effects if necessary. In order to facilitate the training of pupils, Chomel provided alphabetical classifications and those according to the kinds of plants. Mixing the plants with the different properties, he thus forced the reader to read through the whole of the work. Chomel suggested a ranking based on the therapeutic effects of the plants, offering at the same time a comprehensive view (facilitating memorising) and proposals for substitutions in the event that the required plant was lacking.

The doctors agreed on the importance of plant collecting (*herboriser*). To collect plants is a complex intellectual operation, since it is necessary to look at, collect, preserve, study and discuss the observations. The 50 annual opening speeches of the courses of Antoine de Jussieu at the

'Jardin du Roi', between 1709 and 1758, make it possible to grasp the teaching purposes and the difficulty of implementing them, as their reiteration shows.⁸ In 1710, the professor affirmed his ambition to offer vocational training, which would assist with avoiding errors when making the medical regulations.

However, the theoretical study and the actualisation of knowledge were pillars of the training of doctors, in addition to being combined with plant collecting, which was pointed out by Jussieu in 1711. This underlines the opportunity offered by the 'Jardin du Roi', where one could observe plants from all continents and thus avoid the difficulties related to their collection in foreign places. In 1713, Jussieu wrote a kind of defence of botany, which he presented as a true science and not a mere catalogue of medicinal plant names. For the doctors, only the medicinal properties of the plants and the manner of using them in their daily professional practice mattered. Jussieu specified his method of teaching and the main trends of his lessons, all interdependent on each other, to the extent of creating a system. Teaching the 'nature of the plants' consists in revealing their qualities and virtues to then be able to prescribe a therapeutic cure. Correlated to that were indications on the precautions to observe in the regulation of the plants and vigilance on the state of the plants used. Lastly, the doctor took care to proportion and specify the preparation modes of the vegetable remedies (in powder form, for example). His speeches of 1714 and 1715 made botany a current science by persuading the pupils of the uselessness of reading the old authors. This was an inversion of the paradigm, since the reference authors of the medical students were those of Antiquity or the Renaissance. Jussieu is the only doctor to present a form capable of unifying all the new publications to form a common system. His readers were familiarised with a common vocabulary suitable for botany. As a pedagogue, Jussieu thought of a method to facilitate memorising. On the basis of the object of the knowledge to be retained and not its use, as Chomel had done, Jussieu proposed to order the plants by class, kind and species, and thus concurred with the proposals of Pitton de Tournefort.

Starting in 1720, Jussieu sought to widen the audience of his lessons. To do this, he drew up a list of reasons for studying botany, which included scientific designs, professional and medical aims (to find means of preserving health), and leisure (to look at the displays of nature). Jussieu made a point of preserving a small group of professionals among his students, by clarifying the responsibility not only of doctors in the event of an error in regulations, comparable to a 'crime', but also of the patient and

of all the health professionals. Concerning the initiative of the therapeutic cure, the doctor was supposed to correlate the choice of the plants with the stage of evolution of the disease, so as to order it from apothecaries via his prescriptions. This seems to raise the question of the professional responsibility of the doctor and a formulation of expectations with respect to the therapeutic treatment, which meant, at the minimum, not to endanger the patient. But the position of the doctor in charge of the medical hierarchy was reaffirmed. The doctor prescribed and the apothecary carried out his prescription.

Botany makes it possible to know of tested plant remedies, which therefore renders them risk free and effective, and to be differentiated from a routine practice resting on the regulation of bleedings and other topics. Jussieu proposed a reading grid to analyse the causes of the inefficiency of plant remedies, where it distinguishes the culpability that falls on the plant and on the patient, and redefines the role of the doctor, as an intermediary between them. The failure of the plant cure could also be the consequence of his wrong choice of the part of the plant, the season of its harvest, and its inadequacy in relation to the age and constitution of the patient. The goal of his lessons was to give his pupils the means to relieve their patients. As a pensioned Professor of the 'Jardin du Roi', Jussieu made botany a political instrument: to preserve the people was one of the duties of the sovereign and therefore it was also that of the institutions that depended on him.

Each opening speech of his course was followed by "Compliments made to the students finishing the courses of demonstration", where Jussieu commended the perseverance and assiduity of the students. He did not forget their professors. The teachers, who were also doctors, put into practice their knowledge while devoting themselves at the same time to research and scientific experiments. Jussieu proposed that 6,000 *livres* of yearly salary be granted to them to finance books, the exchange of correspondence and the sending of plants. According to Jussieu, botany must receive the same support as that granted to the examination of mineral water.⁹

In addition to medical professionals, medicinal herbs interested a large audience of students, amateurs and the generally curious. The doctors proposed "*cours privés*" [private classes] or "*cours particuliers*" [private tutoring], on the usual plants, open to all but with limited attendance (not more than 40 pupils), within a restricted framework, with the help of a financial contribution. The "*cours privés*" were not recognised by the

delivery of a diploma, as the Faculty scrupulously took care to preserve the monopoly of the conferment of titles. The “*cours privés*” on the plants announced in the newspapers (*L’Avant-coureur* and *Les Annonces, affiches et avis divers*) proliferated in Paris: 60 were held between 1760 and 1789.

The “*cours privés*” were centres of assertion of the expert testimony of the doctors. Chomel proposed “courses on usual plants” for the doctors, free of charge as well as open to herbalists. There, one could engage in profitable relationships for one’s career. Chomel pursued two goals; initially, to inform herbalists so that they could best serve the patients and then the doctors. By training herbalists, Chomel preserved the honour of the doctors and the patients. He was presented as a defender of the professional interests of the doctors, for whom confidence and a good reputation were the basis of the relation with the patients. Chomel linked the reputations of doctors and of apothecaries, because the latter carried out the medicinal preparations of the former. In addition, Chomel wanted to teach young doctors how to avoid simplicity, while being limited to five remedies (bleeding, emetics, cinchona, opium and mercury), or excessive complexity (up to a dozen drugs prescribed for the same patient). Relieving patients, in the absence of being able to cure them, was already a means of gaining their confidence and of preventing them from turning to the charlatans for help. Also, the knowledge and use of the usual plants were a profitable training, since this made it possible to preserve one’s customers by proposing varied remedies to them, which were accessible and inexpensive.

The “*cours privés*” were also innovative teaching spaces. Affirming that he considered the globality of the course of training of the students, Doctor Hugues Gauthier referred again to the nomenclature of Pitton de Tournefort – the one most employed in the courses given at the ‘Jardin du Roi’. It aimed at erasing possible competition between the various courses and promoted the idea of a complementarity among them, as well as a new chronology in the training. Gauthier considered his course as a preliminary method to an improvement of the ‘Jardin du Roi’. He proposed a course adapted to the level of knowledge of the pupils.¹⁰ At the same time, his self-tuition manual titled *Introduction à la connaissance des plantes* [Introduction to the Knowledge of Plants], which complemented the demonstrations and lessons, was printed and distributed to each student registered to follow the course. The work made it possible to draw a parallel, thanks to a system of classification, between the plant present in the garden and the note specifying its essential knowledge. Gauthier indicated the therapeutic properties of the plants, the compositions of

remedies in conformity with the *Codex* of the Faculty, which were thus authorised, and the disease to employ them for. In addition, all of this became exam material during the “*matière médicale*” examination for the candidates during the Baccalaureat in medicine. The apothecary pupils found an interest there since, according to the *Arrêt du Parlement* [Parliament Decree] of 23rd July 1748, they had to carry out the remedies prescribed by the doctors. At the end of this course, the pupil was able to associate a plant with its class and to replace a plant by another with similar virtues.

Doctors continued their self-tuition with a dual objective: the reactivation and/or the actualisation of their knowledge. The success of *La Matière médicale* by Étienne-François Geoffroy was manifest. Among the 21 titles of works of medicine found in 111 inventories after the death of Regent Doctors, between 1700 and 1790, Geoffroy’s book was found in nine cases.¹¹ Jean-Baptiste François de La Rivière, who received the title of Regent in 1756, included the book in his edition of 1753.¹² Besides a clarification on the questions of “*matière médicale*”, the work is a collection of therapeutic treatments exposing the method of curing diseases “that the most skilful doctors follow”, and the mode of action of the drugs, their virtues, the possible or dangerous combinations, posologies, and counter indications. De La Rivière was able to reinvest the book’s contents with a teaching aim when he became a professor of botany in 1767, then of “*matière médicale*” in 1768 and pharmacy in 1773. His professorial career explains why his book was preserved for such a long time.

Doctors became acquainted with medicinal herbs, which represented a challenge to their training within the official institutions of teaching as well as in the private schools. This knowledge was mobilised as soon as they prescribed a therapeutic cure and engaged their responsibility with respect to the other health professionals and to the patient. It was necessary for the doctors to know and differentiate the usual medicinal herbs, and to choose according to the stage of evolution of the disease. Foreign plants were written about at the beginning of the 18th century in the works of missionaries such as Father Charles Plumier.¹³ But the latter indicated neither their medicinal virtues nor their local names. Therefore, there were the questions of how to apprehend them and which obstacles needed to be surmounted to make medical use of them.

A curiosity for foreign medicinal herbs but a limited use

Doctors became interested in foreign remedies at the beginning of the 18th century. In the original thesis of his degree in 1736, Luc Augustin Folliot de Saint-Vast explained the properties of ginseng and showed that it was a restorative drug. The fact that the Faculty accepted this subject and allowed the thesis to be printed meant that use of the plant was authorised, but it still had to be found.

Doctors present in the colonies developed a prophylactic medicine for the benefit of the European colonists, to facilitate their adaptation to the local climate. Such was the position of the Englishman James Lind who, in his *Essai sur les maladies des colons européens dans les pays chauds et les moyens d'en prévenir les suites* [Essay on the diseases of European settlers in hot countries and on the means of preventing their consequences] (1768), described the doctors along with the colonies. These young experts hoped to grow rich and worried little about sharing their acquired knowledge. Their stay was only one stage of their career. Lind allotted the ignorance of the diseases and their treatments in the colonies to the ignorance of their true causes and the lack of professional experience in foreign countries. Access to the local pharmacopeia was complex because it was not the subject of a systematic transcription. If Jean Damien Chevalier, doctor of the king in Santo Domingo, was conscious of the utility of the local remedies in daily practice, he employed them little out of ignorance. For Chevalier, a doctor who had customers did not have time to take into account the useful medicinal herbs. This work must be entrusted to a doctor who devoted himself to it completely, carried out his investigations in close contact with the population and precisely described the remedies. Chevalier could resort to the copy of a manuscript obtained by Duhamel, doctor of the king, based on the original of Depas, also doctor of the king, the *Livre des simples de l'Amérique servant au corps humain découvert par André Minguet, tant en médecines qu'onguents* [Book of Medicinal Plants Discovered by André Minguet and Used for the Human Body, as medicine and ointments] (1713). Though Minguet was a kind of 'empirical' predecessor, his descriptions, validated by Duhamel, were employed by Chevalier. He ensured the diffusion of this work in the form of published extracts.¹⁴ This was a first step towards an appropriation of the local pharmaceutical resources.

Beyond the use of the indigenous plants of the colonies, the question arose of the transmission of local remedies. In his *Mémoire sur les plantes médicinales de Saint-Domingue* [Essay on the Medicinal Plants of Santo

Domingo], probably written after 1735, following his correspondence with his brother Joseph de Jussieu, a naturalist and physician sent on a scientific expedition by the French Academy of Sciences to equatorial Peru to measure a meridian arc, Antoine de Jussieu (1686-1758) explained nothing under the heading of “*ruellia humilis flor*” [wild petunia] because he had never employed it.¹⁵ On the other hand, he affirmed the effectiveness of the plants that he employed, such as the leaves of guaiacum.

Doctors wrote instructions for the botanists present on the spot or advised them through their epistolary exchange.¹⁶ They directed research and contributed to reducing the cost of shipping, since the journey carried out with a precise aim did not need to be repeated. In the case of the four Jussieu brothers, the network of correspondents maintained within the framework of the French Royal Academy of Sciences supplemented that of the ‘Jardin du Roi’, and allowed access to a great diversity of exotic plant seeds and the importation of useful specimens, which were able to be acclimatised and exploited. Jacques François Arthur, the first doctor of the king of Guyana, was the correspondent of Antoine and Bernard de Jussieu. The latter addressed a complete listing of the subjects to be studied and of the research to be made to him.¹⁷ Jussieu was also in contact with doctors who were members of companies and foreign academies likely to bring information to the two brothers. They also formed relationships with people not having scientific qualifications but whose functions put them in contact with the botanists or naturalists present in the colonies, like Pierre Poivre, a member of the high council of the Ile-de-France.

The papers of Doctor Louis Guillaume Lemonnier, professor of botany at the ‘Jardin du Roi’, included a *Recueil de ce qu'on doit normalement ramasser dans un pays nouvellement découvert* [Compendium of What Should Normally be Collected in a Newly-Discovered Country]. The author accompanied each stage by the journey of the naturalist, starting from his arrival,¹⁸ and gave advice on the mode of conservation of the plants, which was judged of value in Europe. The traveller created herbaria. A system of classification of the samples was set up, each one being accompanied by a precise description. Lastly, the text included instructions on the transport of the plants.¹⁹ Lemonnier even went so far as specifying the best stock room on the boat for each plant.

In order to preserve the plants coming from the colonies, many port cities established botanical gardens, like Rochefort, Brest, Bordeaux and Marseilles, and became exchange hubs.²⁰ In Rochefort, the garden of 6,000m² included two greenhouses: one for the conservation of plants

coming from the equatorial regions and the other for those arriving from the colonies of the temperate zone. Part of the grounds was reserved for growing medicinal herbs. The proliferation of botanical gardens in the ports contributed to circumventing the sphere of Parisian expertise by supporting the emergence of local poles of expert testimony, like the naval academies.²¹

The “harbour doctors” (*médecins des ports*) were among the first to be in contact with the foreign plants unloaded at the contiguous botanical gardens. The gardens were also places of teaching for the naval surgeons who served as doctors and apothecaries on ships. In Brest, for example, Doctor Antoine Pépin was in charge of the demonstrations of the usual plants during spring in the garden of the hospital and of explaining their virtues (following the regulation of 30th January 1740 for the School of Surgery of the Royal Navy Hospital of the port of Brest).

The health professionals sent to the colonies were provided with a charter stipulating their duties:

[...] to maintain correspondence with Poissonnier, [...] Inspector and Director-General of Medecine, Pharmacy and Botany, and to report regularly to him on the discoveries [made] both in pharmacy and botany, and in related natural history objects.²²

But the obstacles to acquiring local knowledge on medicinal plants were numerous. Indeed, this knowledge was not written but orally transmitted, which also meant understanding the local medical systems and their terminology. The health professionals who had the quality of a ‘botanist’ were in charge of two missions: describing the plants and indicating their medicinal properties. These professionals had to remain in place a sufficient length of time to observe the effectiveness of the remedy and its permanence. However, herborising was not very easy because of the local conditions, as recalled by Doctor Fusée-Aublet in 1775.²³ If a normative framework was given to the collection and identification of the plants, thanks to the ‘instructions’, both the indigenous and the local therapeutic systems were used. So, was there thus syncretism, coexistence or competition between the two systems?

In the medical practice of the Regent Doctors, the two systems of remedies tended to be employed independently from one another; an attitude that was founded upon the care given to others. Although cinchona and ipecacuanha had found great success in France since the beginning of the 18th century,²⁴ French doctors remained reserved vis-à-vis the integration

of foreign remedies. This prudence was based on the mobilisation and reiteration of two arguments underlining their responsibility for the public in the process. Initially, this attitude arose from an economic point of view: the scarcity of the product was at the origin of its high cost but also of its attraction. Some doctors wondered about the proportions of cinchona, which varied according to its geographic origin. Thus, from a medical point of view, there was no ‘specific single remedy’ to treat diseases.

Nevertheless, the superiority of certain foreign plants over local plants was recognised. Thus, in 1717, Pitton de Tournefort, in the *Traité de la matière médicale* [Treatise on Medical Material], indicated that the adiantum of Canada was better than that of Montpellier. In 1718, Geoffroy specified that the Canadian species was preferred because of its odour and pleasant taste.²⁵ The plant was popular and was used to make a cough syrup. The doctors borrowed some remedies from the local pharmacopeia, provided that they were integrated into their own system of thought and that their composition did not pose any risk. Here, the question of the commensurability of knowledge and of cultural interactions arises. An element of local knowledge became the object of a “particularization”.²⁶ The process was carried out in the long term because the knowledge was made public with the medical treaty and tended to be generalised.

The validation of the medical use of foreign plants took place at the Faculty of Medicine of Paris. Thus, at the time of their meeting on 9th December 1779,²⁷ the assembly of the Regent doctors discussed the use of the cinchona of Martinique called “*pitton*”, from the name of the famous place where it grew. The doctors used the colonists as cultural intermediaries.²⁸ In 1778, the magistrate Barthélémy de Badier, installed in Martinique, dispatched with doctor Noël Nicolas Mallet samples of the bark of “*cinchona pitton*” so that they could be tested in Paris at the Hôtel-Dieu and on individuals, with the assistance of Benjamin Solier of Romillais. The validation of the remedy was carried out based on scientific criteria. To present it in front of the Faculty allowed the remedy to be officialised and gave it a certification of legality. Finally, the Parisian Regent Doctors developed their own knowledge on foreign medicinal herbs. Jean Descemet discharged the botanical examinations. Michel François de Laplanche carried out the chemical analyses. Lastly, Mallet realised medical observations to determine the type of disease for which the plant was useful, compared with the cinchona of Peru and the amounts to be managed so that the vomitory and purgative properties were expressed. Mallet concluded that this cinchona had the same properties as the one from Peru. With a prompt action, the “*cinchona pitton*” cured

recent intermittent fevers and suspended old ones that were resistant to the action of the cinchona of Peru. Moreover, the “*cinchona pitton*” made it possible to avoid the side-effects caused by the harvesting of the plant in Peru. Nevertheless, respecting the medical doctrines of the Faculty, the doctors pointed out that a specific remedy did not exist. The doctors also integrated economic dimensions into their conclusions. The cinchona from Martinique made it possible for France to develop a new commercial branch and to emancipate itself from its dependence on Peru.

The attraction to foreign remedies was real. The *Almanach sous-verre des Associés*, a newspaper for general practitioners, regularly described the plants distributed under two headings: “plants in general” (absorbed by 1782 into the category “medicinal herbs” whose therapeutic virtue was attested to) and “plants lately discovered”. Between 1778 and 1790, two out of three plants quoted were medicinal herbs and thus immediately usable. Newly discovered plants, qualified as “exotics”, were present in a more random way by 1787. However, the combination of knowledge was not very easy due to how European doctors designated a disease. This was done according to a categorisation of the patients into four main groups: “Whites” or the “Inhabitants” (colonist owners), Indians or the Caribbean (another name for the West Indians), the “*Nègres*” (servile populations), and diseases common to Europeans and the slaves. Diseases were regarded as the consequences of a climate defined as pathogenic, except in the case of slaves when their diseases were related to their temperament. This classification supported the physio-pathological hierarchisation of the populations in the colonies. Thus, the colonist could take the same remedy as the slave. Moreover, slaves refused to transmit their knowledge to Europeans: this was a form of resistance.²⁹ Doctors sought to impose their medical designs and an official medicine. For example, Chevalier treated the *Mal de Siam*, a haemorrhagic disease concerning mainly recently arrived colonists. Before embarking, the colonists followed preventive medication including bleedings, which were considered to be refreshing and purgative. When the fever was declared, a classical treatment also contained bleedings and vesicatory applications.

Fear of seeing the remedy arriving wilted or falsified explains the low consumption of exotic medicinal plants. However, they had an additional attraction due to their spatial distance, which made them difficult to obtain because of their scarcity which in fact made them a product of exception, and because of the social significance granted to their consumption.³⁰ They could be a marker of the wealth of the individual and of his social status. But, in France, the setbacks undergone during the Seven Years’

War (*Guerre de Sept Ans*) (1756–1763) alerted the enlightened opinion to the risks related to networks of supply in the case of therapeutic resources.

Controlling the market of medicinal herbs

Recent research shows that the integration of plants originating on other continents in the pharmacopeia was far from being carried out in a linear way and proceeded from complex processes, including phenomena of resistance, between natives and foreigners. Thus, one grasps the fundamental ambiguity of the non-transmission of knowledge, which could just as easily result from colonised populations refusing to share their knowledge as from colonising populations refusing to integrate this foreign knowledge.

The Regent Doctors sought to control the contents of the knowledge on medicinal herbs intended for the other health professions, as in the case of those evolving on the margins of this sphere of activity. In his *Catalogue des plantes du Jardin de Mrs les apothicaires de Paris* [Catalogue of Plants in the Garden of the Paris Apothecaries] in 1759, Doctor Jean Descemet indexed 828 plant species for their medicinal properties and gathered the plants into 22 classes, according to the method of Pitton de Tournefort. Even though the indigenous plants were the most numerous, one also finds plants of the Mediterranean basin. But the apothecaries sought to become emancipated from the Regent Doctors and even opposed them in the fight for the control of the occupation of herbalist.

In 1752, the herbalists filed a first complaint with the Lieutenant de Police denouncing the lack of knowledge of the “seed merchants” who sold medicinal herbs. The herbalists wanted to form a corporation, equipped with statutes, rules and privileges.³¹ Their project was presented to the Faculty of Medicine of Paris. The herbalists thought of denouncing the apothecaries and claiming a “particular instruction” in order to gain the confidence of the public regarding their capacity to distinguish beneficial plants from harmful ones, by sorting the plants brought by the stallholders from the countryside, to preserve the properties of the substances. A regulatory system of the herbalists’ activity in the image of that which was carried out in apothecaries’ shops also forced them to comply with the rules and gave them weight. The parallel with the apothecaries tended to blur the borders between the two professions, with the difference resting on the condition of the sold product: medicinal herbs in bulk compared with pharmaceutical preparations. Doctors recognised the utility of

herbalists, thanks to whom one did not have to go oneself to seek plants in the countryside or abroad.

On 30th October 1767, an *Arrêt du Conseil* [Council Decree] established “herbalist-botanists”, which was an official designation referring at the same time to their status of merchants and experts of plants which extended their fields of intervention. The term ‘botanist’ was also used to appoint doctors. In order to respect the hierarchy of the health professions, herbalists recorded the letters of their financial receipts at the office of the apothecaries, under a penalty of 100 *livres* for failing to do so, proving that they formed a community. However, the Dean of the Faculty of Medicine of Paris opposed the control of the herbalists by the apothecaries. Doctors requested to preserve the right to watch over the raw material of their remedies. By doing so, they found a way of guaranteeing the effectiveness of their remedies and also of limiting the field of intervention of the apothecaries. The main risk for the doctors was confusion of the medicinal herbs. In addition to the negative effects on the patient, confusions could disturb the doctors’ observations and contradict their diagnosis and prognosis. From then onwards, the training of herbalists was no longer assumed as a responsibility by the university. Their knowledge was partly empirical.

In 1777, Paris counted a little more than 200 herbalists, distributing dry or fresh plants in their stores. However, the herbalists were still shown as lacking in knowledge for some; for others, as usurping the place of the doctors by ordering plant remedies. Herbalists did not want to enter into competition with apothecaries, and preferred to obtain an official title recognising acquired competences and legitimacy to practice their occupation. Furthermore, in January 1778, Edme Gillot asked to take an examination of capacity before the Faculty of Medicine of Paris in order to obtain the official title of “herbalist approved by the Faculty”.³² Established on Rue Baillette, Gillot had been a herbalist since 1760. He followed the lessons of Jussieu at the ‘Jardin du Roi’ and of Barbeau Dubourg. The supplier of plants to Jean Coutavoz, a professor of *matière médicale* for the Faculty, he knew the practices and expectations of the doctors. His examination was led by the two professors of pharmacy of the Faculty (Phillip and Lepreux) and by the two professors of *matière médicale* (Coutavoz and Defrasne). The finalities of the examination concerned the future professional, as well as the salesman in contact with the public. The examination included the herbalist in the chain of creation of the plant remedy and in the success of the therapeutic cure ordered by the doctor to whom he remained subordinate. The herbalist contributed to

the public health of the patients by guaranteeing the quality of the sold medicinal herbs. He reinforced the confidence of the public in the effectiveness of the remedies prescribed by the doctors. The herbalist developed a singular relation with the patient founded on the marketing of the product at the base of the therapeutic treatment and on the quality requirement of a singular product, the raw material of the remedy.

The examination of the candidate began with a theoretical part on botany. The candidate had to identify the dried plants presented by the inspectors, as well as the roots, flowers and seeds (of all species and all classes), and under all the aspects (deteriorated, faded, etc.). This included naming the Latin and French plants (notwithstanding his capacity to understand the prescription of the doctor presented by the patient). In order to make sure of his capacity to collect the plants at the right moment and to preserve them correctly, the questionnaire related to the time of the harvest of the various parts of the plants, to the manner of drying and cleaning them, and to the processes of conservation. There was no question about the preparation of the remedies or about the medicinal virtues of the plants, because that belonged to the pharmaceutical field.

The second part, the practical one, consisted in controlling the framework of the professional practice of the herbalist. Their premises included the shop (where the plants for daily use were to be found), the store (a place of conservation of the plants for the patients) and the cellar (a stock room of fresh plants, to preserve them from moulds and insects). The plants were arranged in boxes and labelled very precisely in order to secure them against any risk of confusion and time limitation. The text shows a grid of evaluation of product quality and diversity.

The oath-taking under the direction of senior Faculty closed the examination. It officialised the reception by pointing out the herbalist's obligations, which were commercial (to exclusively sell local and good quality plants), professional (to remain under the control of the Regent Doctors) and medical (to sell toxic plants only on the prescription of the doctor; to hold a particular register of the names of the purchasers and the acquired quantities). By this oath, the herbalists recognised their dependence with respect to doctors.

In the last third of the 18th century, the Parisian Regent Doctors benefitted from the opposition between the herbalists and the apothecaries on the distribution of the medicinal herbs, to affirm their first place within the hierarchy of health professions. By controlling the herbalists, the doctors

exerted a power over the raw material of their plant remedies. Finally, the failure of the ordered therapeutic cure could be allotted to the person responsible for making the remedy: the apothecary. After being assured of the quality of the medicinal herbs, the doctors sought to frame their consumption by the patients. Not having coercive means, they actuated two levers: the fear of introducing harmful or useless substances, and the education of the patients. This meant orchestrating the popularisation of medical plants to divert the patients from ‘charlatans’.

To satisfy the curiosity of readers and to propose to them a kind of health education adapted to their situation as non-health professionals, Doctor Barbeu Dubourg made his *Gazette de médecine*, starting in 1761 – a true body of medical popularisation. It sought “to initiate” its readers, “amateurs”, with the “language of botany”. To do this, he decided to describe the common and known plants to them, and to initiate them in terms of cultivation in their own gardens or pots. Barbeu Dubourg developed a pedagogy through example: the reader saw the plant, read its description and familiarised himself with the “terms of art”. This was so that he would be able to observe the state of the 36 plants proposed at every stage of their evolution and in every season. Barbeu Dubourg took as a starting point the methods of Pitton de Tournefort by including botanical enigmas that would be solved from one issue to another³³ or by recounting anecdotes.

Thus, the Regent Doctors of the Faculty of Medicine of Paris had knowledge of the local medicinal herbs to be able to order a therapeutic cure adapted to the pathological state of the patient, to their temperament and also to their socio-economic status. In the erudite sphere, the circulation of knowledge on foreign plants existed but its daily transposition in medical practice remained limited because of the cost of the plants and of the difficulties of shipping. Seeking to control the knowledge on a raw material whose quality and correct identification were a major determining factor of the success of their treatments, the doctors organised the monitoring of the occupation of the herbalist, whose field of intervention they defined. The doctors also wanted to empower the patients so that they would not be abused by ‘charlatans’. In addition, the doctors worked to popularise botanical knowledge and to warn other health professionals against the attraction of foreign medicinal herbs, which were fashionable but whose medicinal virtues were not always proven. The marketing methods of medicinal herbs were to be replaced at the centre of the division of medical labour, the relationships between

health professionals and the relationship with the patient. These various interactions contributed to making medical plants a singular good.

Notes

¹ Coquillard, Isabelle, *Corps et Lumières*, Thèse d'Histoire, Université Paris Nanterre, 2018, vol. I, p. 17.

² Brockliss, Laurence, and Colin Jones, *The Medical World of Early Modern France*, Oxford, Clarendon Press, 1997, pp. 85-346.

³ Boumediene, Samir, *La colonisation du savoir. Une histoire des plantes médicinales du "Nouveau Monde" (1492–1750)*, Vaulx-en-Velin, Éditions des Mondes à faire, 2016.

⁴ Lafont, Olivier, *Les Médicaments pour les pauvres. Ouvrages charitables et santé publique aux XVIIe et XVIIIe siècles*, Paris, Éditions Pharmathèmes, 2010.

⁵ Faure, Olivier, *Les thérapeutiques: savoirs et usages*, Lyon, Fondation Marcel Mérieux, 1999, pp. 357-382.

⁶ *Tarif général des droits dus aux entrées de Paris sur les marchandises*, Paris, Lamesle, 1781.

⁷ Chomel, Pierre Jean Baptiste, *Abrégé de l'histoire des plantes usuelles*, Paris, Les Libraires associés, 1782 [1712].

⁸ Archives du Muséum d'Histoire naturelle (Paris), Ms 284, Pochette no. 2, "Discours d'ouverture des cours d'Antoine de Jussieu".

⁹ Lunel, Alexandre, *La maison médicale du roi XVIe-XVIIIe siècle*, Seyssel, Champ Vallon, pp. 280-281.

¹⁰ Gauthier, Hugues, *Introduction à la connaissance des plantes*, Paris, M. Lottin, Veuve Robinot, 1760, p. VIII.

¹¹ Coquillard, Isabelle, *Corps et Lumières*, Thèse d'Histoire, Université Paris Nanterre, 2018, vol. II, p. 670.

¹² Archives Nationales, MC/ET/XXXI/211, Inventaire après décès de Jean-Baptiste François de La Rivière, 17 April 1776.

¹³ Plumier, Charles, *Description des plantes d'Amérique, avec leurs figures*, Paris, Imp. Royale, 1693.

¹⁴ Chevalier, Jean Damien, *Lettre de M. DEJEAN, docteur régent de la faculté de médecine en l'université de Paris, sur les maladies de Saint-Domingue, sur les plantes de la même île*, Paris, Durand, 1752, pp. 105-129.

¹⁵ Archives du Muséum d'Histoire naturelle (Paris), Ms 1120, "Copie du mémoire de M. Jussieu sur les plantes médicinales de Saint-Domingue".

¹⁶ Kury, Lorelai B., "Les instructions de voyage dans les expéditions scientifiques françaises (1750–1830)", in *Revue d'histoire des sciences*, t. 51, no. 1, 1998, pp. 65-92.

¹⁷ Jussieu, Bernard de, "Lettre à Artur, 17 janvier 1736", citée in Ronsseray Céline, "Un destin guyanais : Jacques- François Artur, premier médecin du roi à Cayenne au XVIIIe siècle", in *Annales de Normandie*, no. 4, 53^e année, 2003, p. 363.

¹⁸ Archives du Museum d'Histoire naturelle (Paris), Ms 357, Papiers Lemonnier no. 7, "Recueil de ce qu'on doit normalement ramasser dans un pays nouvellement découvert".

¹⁹ Romieux, Yannick, "Le transport maritime des plantes au XVIIIe siècle", in *Revue d'histoire de la pharmacie*, no. 343, 2004, pp. 405-418.

²⁰ Martin, Sébastien, *Rochefort arsenal des colonies au XVIIIe siècle*, Rennes, Presses Universitaires de Rennes, 2015, pp. 305-312. Roussel, Claude-Youenn, et Arièle Gallozzi, *Jardins botaniques de la Marine en France. Mémoires du chef-jardinier de Brest, Antoine Laurent (1744-1820)*, Brest, éd. Coop Breizh, 2004.

²¹ Regourd, François, "Capitale savante, capitale coloniale : sciences et savoirs coloniaux à Paris aux XVIIe et XVIIIe siècles", in *Revue d'histoire moderne et contemporaine*, 2008/2 (no. 55-2), pp. 145-150.

²² "d'entretenir une correspondance avec Poissonnier, [...] Inspecteur et Directeur général de la médecine, de la pharmacie et de la botanique, et lui rendre compte régulièrement des découvertes [faites] tant dans la pharmacie et la botanique, que dans les objets relatifs de l'histoire naturelle", Archives Nationales d'Outre-Mer, COL E 292, Loubers Thomas, Brevet de médecin du roi à la Basse-Terre de la Guadeloupe, 13 October 1786.

²³ Fusée-Aublet, Jean-Baptiste, *Histoire des plantes de la Guyane française*, Londres, P.-F. Didot jeune, 1775, Préface, pp. XIII-XVII.

²⁴ Lafont, Olivier, "L'introduction du quinquina dans la médecine européenne : un choc culturel au XVIIe siècle", in Rieder Philip, Zanetti François, *Materia medica. Savoirs et usages des médicaments aux époques médiévales et modernes*, Genève, Droz, 2018, pp. 129-130.

²⁵ Geoffroy, Etienne-François, *Traité de la matière médicale*, t. 5, Paris, Desaint et Saillant, 1748, pp. 52-68.

²⁶ Agrawal, Arun, "Classification des savoirs autochtones : la dimension politique", *Revue internationale des sciences sociales*, 2002/3 (no. 173), pp. 325-336.

²⁷ *Journal des Savants*, April 1781, pp. 233-234.

²⁸ Schiebinger, Londa, *Secret Cures of Slaves. People, Plants, and Medicine in the Eighteenth-Century Atlantic World*, Stanford, California, Stanford University Press, 2017, p. 149.

²⁹ Boumediene, Samir, *op. cit.*, pp. 402-403. Dorlin, Elsa, *La matrice de la race*, Paris, La Découverte Poche, 2009, Chapitre 11, pp. 230-269.

³⁰ Roche, Daniel, *Histoire des choses banales. Naissance de la consommation dans les sociétés traditionnelles XVIIe-XIXe siècle*, Paris, Fayard 1997.

³¹ Kaplan, Steven L., Minard Philippe, *La France, malade du corporatisme ? XVIIIe-XXe siècles*, Paris, Belin, 2004.

³² Perrot, Emile, *Le premier herboriste diplômé en France : Edme Gillot (1778)*. *Bulletin des Sciences Pharmacologiques*, t. 40, no. 11, November 1923.

³³ *Gazette de médecine*, 30 June 1761, "Anecdotes sur l'origine de l'eau de Carmes", p. 295.

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AN INTERPRETATIVE ESSAY OF THE BRETON PHARMACOPOEIA: AN ETHNOBOTANICAL APPROACH

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Introduction

Plants, inseparable from the material and symbolic lives of human groups, are a vector for meeting and cultural exchange. The dissemination of plants and knowledge tells a social history of herbs; one of cultural transfers and their failures, as well as the transformation of fields of knowledge or their persistence.

At the turn of the 21st century, the Breton ethnobotanical domain, unexplored until then, was the subject of in-depth investigations and field work. The extensive corpus which these resulted in calls for a synthesis on the place traditionally occupied by plants in the pharmacopoeia: this will be the subject of this essay of interpretation. It is advisable to highlight certain peculiarities of popular medicine, including in particular the persistence of magico-religious behaviours in the mobilisation of plants.

A comparative study of the various terrains reveals internal disparities in the region, in their relationships to medicinal and food herbs. Interrogating this geography of knowledge implies estimating the combined variations of the flora and local knowledge. These contribute to sketching socio-geographic areas of the use of plants.

The concern for interpretation of the Breton pharmacopoeia leads to the confrontation of data with other horizons of the French ethnobotanical field. In light of these comparisons, it is possible to put forward certain hypotheses about the circulation of popular knowledge of herbs, as well as about their conditions of appropriation and updating.

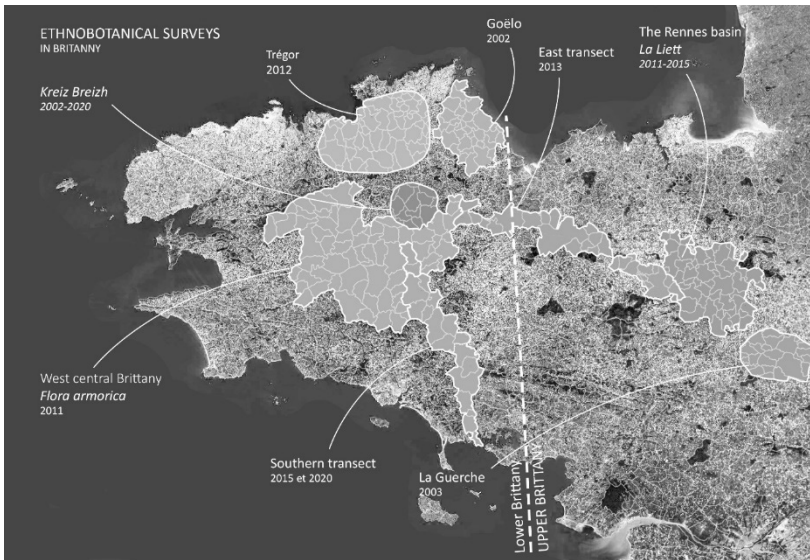


Figure 1: Map showing the location of the inventories carried out in Brittany @Clément Nivet



Figure 2: Field investigation



Figure 3: *Garden angelica*, *Angelica archangelica*, whose use as a digestive liquor marks the entry into the Rennes basin.

Methods

Originally carried out in seven municipalities in central Brittany, my ethnecology Ph.D. serves as a framework for research on the joint transformations of nature and the peasant world. Local naturalist knowledge is characterised by a striking social reticence towards the plant world in terms of food and medicine. This opens a first corpus of data, named *Kreiz Breizh*.¹

Interviews carried out in the region of Rennes have revealed a greater alliance with plants, as well as the transposition of more diverse uses. The marked and polarised contrast between the knowledge of the two regions opened up prospects in the nascent ethnobotanical data. What is the best way to understand these differences? How to highlight them?

- In order to assess the heterogeneity of knowledge in this area, a survey called “east transect”² was carried out along the central Brittany–Rennes region axis. Transect is a term borrowed from ecology and it is a methodological means of studying the variation of environments along an axis, between point A and point B. This approach provides a joint estimate of gradations of the plant environment and the social environment. The route (85 km in a straight line) crosses a culturally heterogeneous territory, divided by the Breton/Gallo linguistic border.³ The surveys took place in 2013 and involved 37 people. This is the second corpus of data.
- A second transect, the “southern transect”, was subsequently carried out from the centre to the south of Brittany⁴; it constitutes a third corpus to which I will refer. This second transect (110 km), confined to Lower Brittany, was motivated by the need to remain in linguistic continuity – that of the background of the Breton language. The goal was to rule out the possibility of cultural bias that could cause a break between the Breton and Gallesse areas in the previous transect. For the time being, only the southern half of the section was the subject of population surveys in 2015. The northern half was finished during the summer of 2020. If the small sample of the population encountered – 11 people – does not allow a quantitative comparison, it nevertheless allows qualitative considerations.

The data synthesis is also based on the following inventories:

- in **west central Brittany** (*Flora armorica*, 2011)
- in **the region of Goëlo** (Le Calvez, 2020)⁵
- in **the Rennes basin** (funding from *La Liètt* association)
- in **the region of La Guerche de Bretagne** (Darrot-Dumusois, 2003).

The censuses common to the Rennes basin (“east transect” and *La Liètt*) and to the region of La Guerche de Bretagne are grouped under the designation “Ille-et-Vilaine” (a Breton department). The comparative analysis is also based on the phytogeography of the Armorican Massif, delivered by the online *eCalluna* database of the National Botanical Conservatory of Brest.

Linguistic detour

The consultation of two specific parts of the popular classification of the names of plants in Breton illuminates the way in which society simultaneously envisages its relation to the plant and the way social order is perceived.⁶

1. “French” plants and “Breton” plants

The following first series of plant names provides information on how the Breton and French identities are considered hierarchically. In some sectors, Breton speakers talk of so-called “Breton” plants and of so-called “French” plants. The determiner “*galleg*” or “*gall*” means “French”:

- Formerly cultivated gorse (*Ulex europaeus*) is named *lann galleg* or “French gorse”, in competition with *lann brezhoneg* or “Breton gorse” (*Ulex gallii*). The first species, which is considered as noble gorse, provided precious winter fodder for horses, while the second is an unusable variety because it is too spiky: it thus conveys a pejorative image.
- A domesticated and imported species, the walnut (*Juglans regia*) is called *kraou galleg*, or “French nut”.⁷ This is opposed to *kraou garzh*, “hedge nut” or the hazel (*Corylus avellana*), a native species which grows in profusion.
- Spontaneous grass, cocksfoot (*Dactylis glomerata*), *yeot gall*, or “French herb”, was sown in temporary meadows before the arrival of modern grasses.

- In the Monts d'Arrée, the attribution of “French plant” is used to qualify the varieties and cultivars from garden centres, with anatomical refinements, in comparison with the original rustic species.
- The linguists Jules Gros (Gros, 1996) and Francis Favereau underline the distinction between good land and bad land in the following way: “*douar galleg*, land for wheat, in opposition to *douar brezhoneg*, land for buckwheat, of the country, of small breed” (Favereau, 1993).

The determiner “*galleg*” underlines a nobler status than that of a poor-quality plant or soil, downgraded by the name “*brezhoneg*”. This naming method recalls by metonymy that the spontaneous corresponds to the native, the Breton, which has less value than the cultivated, the exogenous, the French. It discriminates in favour of what produces and what is the result of progress and innovation. Since the modern era, innovation has been urban and central; it is French. Backwardness is rural and peripheral; in this case, it is Breton. We understand the symbolic violence of the semantics used in these phytonyms, which carry a negative local identity.

2. To distinguish the edible from the inedible

A long series of names in Breton is built on a binomial opposition based on the distinction between food plants, domestic plants and related species, unmanageable and wild. Wildlife is named by adding an animal name as a determiner. Table 1 presents some examples.

Table 1: Popular taxa with animal determiners

<i>Popular taxa</i> Domestic fruit trees	<i>Popular taxa with animal determiner</i> Wild fruit trees
cherry tree (<i>Prunus cerasus</i>)	wild cherry tree (<i>Prunus avium</i>)
<i>kelez</i>	<i>kelez mouilc'hi</i> , “blackbird cherry tree”
perry pear tree (<i>Pyrus communis</i>)	wild pear tree (<i>Pyrus piraster</i>)

<i>Kozhper</i> , “nasty-pear”	<i>Kozhper mouilc ’hi</i> , “blackbird nasty-pear”
chestnut (<i>Castanea sativa</i>)	horse chestnut (<i>Aesculus hippocastanum</i>)
<i>kistin</i>	<i>kistin moc’h</i> , “pig chestnut”

Herbs consumed	Herbs not consumed
cabbage	dock (<i>Rumex obtusifolius</i> & <i>Rumex crispus</i>)
<i>kaol</i>	<i>kaol moc’h</i> , “pig cabbage”
garden sorrel (<i>Rumex acetosa</i>)	sheep’s sorrel (<i>Rumex acetosella</i>)
<i>trichen</i>	<i>trichen logod</i> , “mouse sorrel”

Human food species	Forage species with animal determiner
potato	forage potato
<i>pato</i>	<i>pato moc’h</i> , “pig potato” <i>pato saovach</i> , “wild potato”
buckwheat (<i>Fagopyrum esculentum</i>)	Tartary buckwheat (<i>Fagopyrum tataricum</i>)
<i>ed-du</i>	<i>ed-du saovach</i> , “wild buckwheat”

Potatoes and buckwheat are characterised by the existence of a forage variety and a variety intended for human consumption. The potato, *pato*, grown for pigs is called both *pato moc’h* (“pig potato”) and *pato saovach* (“wild potato”). In the case of buckwheat, the fodder form intended for horses, which is little appreciated and has a bitter taste, is called *ed-du saovach* (“wild buckwheat”). It could, however, provide additional food for poor families. The amalgam between the poor and the animal is built by food assimilation: there is unity of substance and unity of status.

The gap established between animality and civilisation is therefore reinforced by linguistic use. The fact of associating an animal determiner with a plant name condenses, by mirror effect, a representation of the natural order in front of the cultural order, of the inedible in front of the edible.

Some persistence in folk medicine

Compared to other regions of France where the use of magico-religious acts had declined since the end of the 19th century (Weber, 1976), the surveys carried out in Lower Brittany restore a vivid memory of magical and ritual behaviour in the use of plants, for preventive or curative purposes (*Flora armorica*, 2011; Gall, 2020): bouquets hanging in the stables (holly and mistletoe against ringworm; crosses of elderberry or medlar against the intrusion of vipers, toads and salamanders); hawthorn bushes protecting both animals and humans; amulets hanging from the neck; etc. This list shows a battery of plants used by Bretons to protect themselves from an unpredictable surrounding world that was deemed hostile.

This is to be placed in continuity with the residual space allocated to the conjurers or *diskonter* (who took care of warts, scabs, shingles, eczemas, burns, etc.), and, to a lesser extent, to the rites linked to the saints and sacred fountains fallen into disuse earlier, the whole of which characterises folk medicine where the border between the empirical, the profane and the sacred is blurred and permeable. These therapeutic gestures act in the apotropaic register, particularly mobilised in the north-west of France before the advent of modernity (Gall, 2020). In order to divert the danger, common knowledge is based on analogical thinking and the principles of “sympathetic magic”. Bearing consecrated signs in correspondence with the causes of the disorder, the plant becomes a talisman: depending on the case, it is chosen for its volatile perfumes with prophylactic virtues, for its defensive thorns, for its evergreen foliage as a symbol of eternity, for its early flowering in May, charged with magic, etc.

Knowing that the French-speaking ethnobotanical literature does not report similar observations (Delcour, 2004; Lieutaghi, 2009; Bain, 2013; Hennot and Puissant, 2015; Cavallo et al., 2014), the term of ‘persistence’ to qualify pre-modern thinking, which could sometimes last until the 1990s, therefore seems appropriate. Rigorously based on ethnographic sources, this observation intends to avoid the pitfalls of folkloric imagery and the stereotypes of Bretons as “mystical and religious” (Bertho, 1980).

Geographic disparities in knowledge

1. A vacuum-proof ethnobotany in the *Kreiz Breizh*

The research initiated in the *Kreiz Breizh* sector reveals the weakness of the relationship maintained with the wild flora. It is characterised by the low use of medicinal plants, as well as a marked rejection, specific to the study area, of edible wild flora. Here, there are no cress and traditional dandelion salads, nor sorrel and nettle soup for the country folk. About the dandelion, I was told, “Foreigners eat that but not the locals.” The social appropriation of the wild on the culinary level was the privilege of foreigners: “I know an Englishwoman who makes elderberry jam. I didn’t do it, I don’t need it.” Similarly, the archetype of the “Parisian” makes him a stranger to local society and this distinction allows him to eat what are considered as “modern” foods, such as spinach: “I have never eaten spinach...Parisians on vacation here ate that. We are more rustic here. We’re not going to eat stuff like that.” Food reticence is therefore akin to an aboriginal marker, which recalls the observations made about the Breton botanical lexicon. The distinction also operates between people in the countryside and people in the towns, with the latter being able to afford these leisurely practices of eating watercress and of making blackberry jams.

The quality of the vegetable harvest, as a figure of the raw world, revolves around a notion of ‘moral eating’. Some representations border on a food taboo. Thus, the threat of lice is frequently advanced for anyone who ventures to bite into ground hazelnuts, sloes or raw chestnuts. The imagery associated with lice refers as much to misery as to a lack of hygiene. During the 20th century, the hygienic argument came to reinforce distrust towards a world with which we are already in disharmony: the informants invoke the risk of the sheep fluke to prohibit the consumption of watercress, or the risk of contamination due to cow urine against the ingestion of dandelion, etc. The raw vegetable marries the contours of a wild and dangerous food to eat. The categories of dietary risk clearly resonate with the classification and names of plants.

This plant food is intended, on the one hand, for animals (regarding the groundnut, a witness assured me that: “It is the wild boars and the badgers which eat that.”) And, on the other hand, it is prized by the foreigner, presented as a ‘phytophile’. By moving away from nature and by ensuring that the plant nature is foreign to oneself, the peasant of the granite massif knowing himself to be poor and Breton, in addition, claims his roots in

culture and dignity. He over-invests his peasant identity, a symbol of attachment to the region on which his 'phytophobia' is grafted.⁸

It is striking to note that these strict and excluding representations lessen as soon as we investigate below the massif towards Callac and Rostrenen, and north towards Gurunhuel. The consumption of sorrel, watercress or dandelion is no longer a rarity, in the same way that grandmothers still taught their grandchildren there, in the 1980s, to appreciate hazelnuts and primrose flowers.

2. Enlargement to the region of west-central Brittany

Investigations extending to the west-central Brittany region (*Centre Ouest Bretagne*, or COB) offer a more complete data set (*Flora armorica*, 2011) and allow a better appreciation of the socialisation of the flora of the massif. Although they appear to be less binary, the results point to the same distant trend in the population of this region towards wild plants. Folk medicine revolves almost exclusively around external health care. The primary area of observation, the cutaneous sphere, is the target of the greatest number of prescriptions. Internal care through the administration of infusions and decoctions is poorly represented.

The preservation procedures are quite rudimentary and consist of balms or ointments made from animal fat. More elaborate preparations, oily macerations, lotions and alcoholisations are excluded. The drying of plants, for the purpose of making medicinal herbs available all year round, is rarely mentioned.

For the articular sphere, infusions (of ash, meadowsweet, blackcurrant, etc., observed in other regions) being set aside, they give way to external uses, of revulsive action. The recourse to the tuber of black bryony (*Dioscorea communis*), to the reddening properties, or to the flogging stinging of nettle rest on a harsh counter-fire to be opposed to the fire of inflammation. The ill-treated sick body, like the hardworking body, is not the object of special attention by the local peasant culture.

In an analysis of the problems of French ethnobotany, Crosnier (2003) compares the place of food plants in seven inventories (Table 2). The information available in COB and Ille-et-Vilaine has been placed in the same table.

Table 2: Survey data from selected inventories

Surveyed region	Number of informants	Total number of species used	Number of plant food species
Rennes basin		143	42 wild (drinks included)
West central Brittany (COB) (2011)	94	136	26 wild (drinks included)
Vercors (1989)	107	263	75
Morvan and Burgundy (1998)	210		113
Lubéron (1998)	123	330	80
Cévennes region (1998)			51 wild
Cévennes			64 wild
Mont Lozère			34 wild
Ventoux (2001)	50	320 wild species known	98

COB collection displays the lowest numbers of species used (136) and food plants (26). These essential comparative data shed light on the modest share of flora in naturalist knowledge in central Brittany. The lack of specialisation of knowledge related to wild plants, food and medicine, is linked to the remoteness of cities (we will see below that this is not the only factor). The following testimony summarises the effect of the rural exodus, as well as the social and cultural mix on the edge of major cities:

I lived in Bédé near Rennes. I lived with a chatelaine. She was originally from Holland. She introduced me to all kinds of things. She ate the plants around the moat. She made a nettle marmalade to make tart bases. (*Flora armorica*, 2011)

The attitude towards mushrooms is even more radical. A hated natural object and lexically linked in Breton to the toad, *tousseg* (hat or toad food), the mushroom, whose very name in Breton retains its toxicity,⁹ crystallises the fear of intoxication by the consumption of the wild. Rejection of mushrooms becomes a food taboo: rural Lower Brittany is traditionally mycophobic. Close to major cities (Quimper, Vannes, St Brieuç, Rennes), the repeated accounts found in harvesting testimonies show a slow diffusion of mushroom picking in the 1950s from learned circles (teachers, doctors, pharmacists, etc.).

The city is a decisive operator in the major transformations that affect science and technology. During the 20th century, the acceleration of exchanges and massive migrations were fundamental to the dissemination of knowledge. In geographically isolated areas, such as COB, the non-incorporation of plants and mushrooms was the expression of reservations in the face of a poorly controlled natural environment, which led to mistrust. It is as if the ingestion of the plant reflected the passage of a selective barrier, the transgression of the bodily order by the incorporation of feared foreign elements, and almost represented a taboo.

The disjunction operated among the living by the interdiction actually signifies a border projected into the social environment. The harvesting plant would thus be the sign of a simultaneous caesura, on the one hand, between the domesticated natural environment and the wild natural environment, and, on the other, between the civilised social environment and the less evolved social environment. We can deduce that the refusal to ingest the wild translates on the part of this peasant environment – more modest than many others – as the will not to be assimilated to an archaic world and a will to adhere to modernity.

3. Opening up to the coast

Knowledge increases as we move from the interior of the land to the north of Trégor (Guingamp, Lannion, Tréguier, etc.). Here and there, there are descriptions of the use of summary infusions in winter “before going to bed. In the evening to warm up, after eating”. The closer you get to the coast, the more diverse the uses. Some families dry mint, chamomile, blackcurrant or lime. If the cress cure is recognised in the region of COB for “renewing the blood”, the purifying functions of plants are enhanced by forms of decoction (rumex roots, walnut leaves, etc.). Although relatively superficial, these habits indicate an increased familiarity with the therapeutic plant, in terms of identification of species, handling and

conservation processes.

The surroundings of larger cities allow trade (of fruit, in particular) between surrounding farms and places to eat, which is all the better if the area is popular with tourists. The mild climate welcomes a more extensive fruit heritage, in terms of fruit species and diversity of knowledge: horticultural techniques (grafting, pruning, booking a rotation for the orchard, etc.) and more varied productions (jams, jellies, some types of liqueurs, etc.). Linguistically, the terminology of the field is denser in terms of know-how, diversity of species and named local varieties.

East of Trégor is the region of Goëlo (a coastal area from Paimpol to Saint Briec) on the seafront. Suddenly, the multiplicity of plants and recipes collected by Le Calvez (2020) translates as a panel of substantial knowledge, which contrasts with the neighbouring Trégor and *a fortiori* with inland Brittany. Plant-based folk medicine follows an alignment with ‘continental’ common knowledge. The following list (including the association of the name with the therapeutic indications), which is non-exhaustive, shows the extension of the field of knowledge: absinthe / tonic properties, taken in liqueur; sagebrush / emmenagogue; cabbage leaves / resolvent; artichoke / cleansing and cholesterol-lowering leaves; boxwood / varicose ulcer resolution; chicory / cleansing; quackgrass / purgative, etc. From the proximity of the sea comes another area of knowledge, linked to the exploitation of algae for land improvement, but seaweed is also used for healing properties. Another significant novelty, the floral aesthetic appears in tableware: “We ate borage flowers. It’s good and it’s pretty. It decorates a salad well” (Le Calvez, 2020).

4. Crossings of Brittany

Surveys carried out on other sites (Rennes, region of the Mené, region of Vannes) shed additional light to refine our understanding of local ethnobotanical particularities. The extension of research was done in the form of transects, the principle of which was presented in the section titled “Methods”.

4.1 East transect

The first transect is from central Brittany to the Rennes basin¹⁰.

4.1.1 Herbs in folk medicine

Throughout the transect, the knowledge of plants increases towards the east, evidenced by the use of herbal teas whose gradual amplification reveals an increasingly assiduous use of flora. A major species of the European pharmacopoeia, the meadowsweet, whose anti-rheumatic properties are recognised around Rennes, signals a change in the status of the plant with regard to folk medicine. The use of these plants in infusions testifies to the internal use of herbs and, in fact, to a significant transformation of the relationship with the simple. By comparison, this use of herbs is largely overlooked in the west despite their natural abundance.¹¹

The more complex methods of conservation become flexible according to needs. The practice of drying herbs is becoming common; among the liqueurs (with a long shelf life), there are two liqueurs of garden angelica and mint with digestive attributes. Angelica liqueur is particularly appealing, in the sense that its usage is only cited in a specific municipality and that it is then systematically mentioned in interviews on the end of the transect. On the border between Côtes d'Armor and Ille-et-Vilaine, the town of Lanrelas, with a fairly low altitude, marks the entry into the Rennes basin. For the angelica as a cultivated plant, this area meets its requirements of heat and rich soils: its usage as such marks the geographical boundary of an area of knowledge, of a territory with a richer plant diversity which corresponds with these diversified uses that irrigate society. As an expression of the alliance between natural contingencies and social facts, its valorisation acts like a milestone of knowledge on a micro-local scale.

According to the associated databases of the east transect and *La Liètt* listed in this region of Rennes, there are 16 alcoholic drinks, among which we must distinguish the liqueurs made of fruit maceration (quince, raspberry, hazelnut, pear, rose hips, sloe, plum, prune), of herb maceration (angelica, white broth, blackcurrant, mint, rooster mint, hops, walnut) and of maceration in wine (peach, walnut wine).

In conjunction with the growth of the plant pharmacopoeia, the diversity of the fruit heritage is growing as the survey progresses along the transect. Three new fruit species are mentioned in the Rennes basin: quince, medlar and corm. Numerous recipes – pies, fruit cooked over a wood fire or baked in wine, fruit in syrup, jams, *pommé*¹² – enhance an unknown fruit richness in the cold and humid ‘high’ lands of *Kreiz Breizh*. Compared with the censuses of this study, the testimonies from the Rennes region

show the densest fruit heritage.

4.1.2 Wild herbs in food

The summary of inventories presented in Table 2 shows a higher number of spontaneous food species in Ille-et-Vilaine (42) compared with the region in COB (26). An examination of the differences between the floristic processions of each micro-region provides an explanation. Of the 85 food and/or medicinal plants noted in Ille-et-Vilaine, 32 are unusual in COB and 54 are unusual in *Kreiz Breizh*. These lower levels of use are explained in particular by the fact that part of the flora identified in Ille-et-Vilaine does not exist in the two other sectors: 27 of the 85 species (35%) are absent from *Kreiz Breizh* and 14 (16.4%) do not exist in COB.

In short, the populations that value the lowest proportion of plants live among a less diversified flora. The same observation was made for the fruit flora. Without concluding that there is a strict correlation, one can at least imagine that, for societies with a relatively similar cultural background, plant variations would influence the intensity of the social production of knowledge. The unfavourable biological and climatic context may thus reinforce the ‘phytophobic’ social attitude of *Kreiz Breizh*.

In addition to the climatic factor, which is very real,¹³ the importance of social factors in the distribution of knowledge cannot be overlooked, and should be interpreted in terms of the circulation and mixing of populations. In these terms, Ille-et-Vilaine stands opposite to the isolation of central Brittany, due to its historic industrial dynamics and a less remote location compared with the rest of the ‘hexagonal’ French territory. However, another reading of Table 2 highlights the relationship between Rennes and its flora, which is rich compared with central Brittany, but modest compared with the French studies presented. We will return to this point later.

4.2 South transect

Within this itinerary, various informants shared memories of agrarian rites, memorial traces that corroborate the idea of the persistence of magico-religious conduct in Low-Breton society, devoid of explicit links with witchcraft: in the region of Auray, hawthorn served to ward off bad luck on 1st May; the rite of the “May branch”, which consists in blocking the intrusion of ‘evil’ into the domestic habitat by a beech branch during the night of 1st May, is still very much alive today in the north-west of Morbihan (*Flora armorica*, 2011); the houseleek was placed on roofs to

protect against the risks of thunderstorm, etc.

The choice of the north–south route introduces a new bias for the analysis: the discontinuity of the vegetation, between the interior environment and the coastal fringe. The amplitude is particularly pronounced near the coast. The mild climatic context favours a pharmacopoeia that is found neither in the interior of the wilderness (absinthe, lily, rue, thyme), nor on the northern coast (tansy, milk thistle). Among the new species elsewhere in Brittany, there is milk thistle. It is recommended to “boil it in milk to cure poisoning”, in both human and animal medicine. It owes its attribution of poison counteraction to its hepatoprotective properties. Its denomination of “counter-poison herb” or *louzaouenn gontrañpoezon*, and the fact that the prescription was collected four times, attests to a solid local anchoring of knowledge.

The herbalist practice attests, in the region of Auray, to the existence of the company *La Flore bretonne* producing medicinal plants of national renown during the first half of the 20th century, as well as to the discovery of a recipe book of simples by one interviewee for therapeutic indications ignored by folk medicine (cholesterol, diabetes, kidney drainage, wrinkle care, etc.). All of the sources, both written and oral, reveal a local relationship with the relatively rich medicinal flora. It is likely that the Brittany coast, and particularly the south of Morbihan as an area of attraction and affluence, play in favour of the transmission of knowledge and its renewal.

In terms of vegetation distribution, the climate of southern Brittany encourages a varied flora, notably enriched with plants from the Mediterranean series. Ultimately, the inventories close to the coast (Pays Vannetais and Goëlo), to which we must add those of Ille-et-Vilaine, present a certain number of major plants of the European pharmacopoeia, absent from the surveys carried out in the centre-west (absinthe, sagebrush, artichoke, milk thistle, lily, meadowsweet, marigolds, thyme, etc.). Once again, the necessary combination of social and natural facts is manifested to encourage the conditions that are favourable to a good understanding of the plant mysteries.

Ethnobotanical horizons

It is now necessary to characterise the Breton pharmacopoeia or pharmacies in relation to pharmacopoeias identified in other European regions, using ethnobotanical concepts and analysis suitable for the interpretation of

geographic variations in knowledge and flora. The approach is included under the name of “knowledge ecology” (Lieutaghi, 1986).

1. Therapeutic knowledge pool

There is a section of the European flora common to most societies in the same geographical area and which is distinguished by its recurrent presence in most pharmacopoeias. These plants cover a wide spectrum of medicinal needs; they constitute what Lieutaghi (1986) calls a “therapeutic knowledge pool”. His analysis of six ethnobotanical surveys – four in France (Briançonnais, Corse, Lubéron, Morvan), one in Italy (Piedmont) and one in Switzerland (Valais) – confirms the homogeneity of knowledge common to different societies. It distinguishes 12 plants that belong to the European “common fund” of medicinal products (Table 3, grey lines) (Lieutaghi, 2009).

Table 3: Comparison of the European therapeutic common fund with Breton surveys

Survey in Haute Provence (Lieutaghi, 2009)	Surveys in Ille-et-Vilaine	Survey on the north coast	Survey in west central Brittany
Agrimony			
Cultivated garlic	Cultivated garlic	Cultivated garlic	Cultivated garlic
Hawthorn	Hawthorn		
Burdock			
White broth	White broth		White broth
Borage			
Chamomile	Chamomile	Chamomile	Chamomile
Quackgrass	Quackgrass	Quackgrass	
Cabbage	Cabbage	Cabbage	Cabbage
Poppy			
Dog rose	Dog rose		

Wall germander			
Mauve	Mauve	Mauve	Mauve
Lemon balm			
St. John's Wort		St. John's Wort	
Walnut	Walnut	Walnut	Walnut
Onion	Onion	Onion	Onion
Nettle	Nettle	Nettle	Nettle
Upright pellitory		Upright pellitory ¹⁴	
Wild pansy			
Common plantains	Common plantains	Common plantains	Common plantains
Horsetail	Horsetail		
Bramble	Bramble	Bramble	Bramble
Wild thyme	Wild thyme		
Elderberry	Elderberry	Elderberry	Elderberry
Total: 25 plants	Total: 16 plants	Total: 13 plants	Total: 11 plants

Among the three most completely surveyed areas in Brittany, Ille-et-Vilaine presents the best analogy with the common fund (9 plants), followed by the north coast (Goëlo to Bréhat Island) (8 plants), then the COB (6 plants). The ethnobotanical collections of Brittany thus reduce the “common fund” proposed by Lieutaghi (2009).

As for the comparison with the larger sample of 25 plants from Haute Provence, the other six surveys present between 25 plants and 18 common plants (Lieutaghi, 2009). In Brittany, Ille-et-Vilaine only shares 16 plants on this list, the northern coast shares 13 plants, and COB shares 11 plants. With the differentials again going in the same direction, two observations that have already been made can be validated:

- In terms of Breton ethnobotany, Ille-et-Vilaine has the most similarities to pharmacopoeias collected outside the Armorican peninsula.

- In the European ethnobotanical field, the relationship with the flora in Brittany is less extensive than that of other surveys in the registers of ‘medicinal herbs’ and ‘edible herbs’. This singularity becomes more marked as one progresses towards the west and even more so towards central Brittany.

The biogeographic angle makes it possible to account for the differences between the inventories carried out in Brittany vis-à-vis this common fund. Seven species are either absent from the spontaneous Breton flora (sprouting little oak, lemon balm) or essentially present on the coast (borage, poppy, St. John’s wort, walnut, upright pellitory). Two grow exclusively in the east of the region (agrimony, thyme) and the distribution of wild pansy, rare in the west, follows this tendency of the ‘gradient’ characteristic from west to east. The low regional visibility of these 10 species explains their lesser integration into, if not their absence from, the pharmacopoeia.

But how do we interpret the absence of therapeutic knowledge of two species (burdock and horsetail)? Although present on Breton territory, they can be classified in the large spectrum of plants usually administered as infusions but seldom or never listed in local knowledge (ash, fumitory, mint, meadowsweet, etc.). Would the low affinity for internal care be extended to Brittany? This element could be decisive in explaining their absence from the pharmacopoeia, but the hypothesis remains to be explored. Conversely, the navelwort, a medicinal herb emblematic of the Breton pharmacopoeia (a plant attached to the cutaneous sphere) and absent from the “common fund”, is applied externally.

Finally, from a biogeographical point of view, the common Breton flora presents characteristics of remarkable edaphic and climatic homogeneity (Corillon, 1971), which motivates Lieutaghi (2009) to underline that: “It is also important to compare in detail the perception and the use of flora from ‘complex’ regions, such as Haute Provence or Valais, with ‘simple’ regions where the possibilities of recourse are less diversified due to the relative homogeneity of the flora (such as the Armorican Massif, Champagne, etc.)” This homogeneity in terms of species would incline the population towards less familiarity with, and to a more modest social appropriation of, the flora.

2. Ethnobotanical markers

Distributed over large geographic areas, occupying a major place in the pharmacopoeia, and generating myths and rituals, certain plants appear as 'ethnobotanical markers'. Variations in the practice of these species, both in time and space, provide valuable information on the dynamics of knowledge.

I will focus mainly on hawthorn and elderberry, two key species, to characterise the changes in the uses and representations of plants in Brittany.

Hawthorn is securely linked to the body of ritual persistence discussed above. A thorny shrub, with the 'magic' flowering of May, it is the protective bush of human habitat, animal health or crops. Several testimonies report that the birth of calves, so precious for the domestic economy, gave rise to a propitiatory act: the afterbirth was thrown on the shrub in order to avoid any danger to the new born. The inscription of hawthorn in many rites of the May cycle makes it a symbol of the disappeared agricultural rituals. This ancient function contrasts with the rare modern attributions collected in Brittany where it is considered as a heart stimulant and sedative plant, but which, on the other hand, appear in all the recent surveys in the rest of France and in Belgium. This was a major discovery at the end of the 19th century (Lieutaghi, 2009), but was quickly integrated into popular knowledge in France. It is obvious that this dissemination has not been integrated and updated by Breton folk medicine.

An object of ethnobotanical curiosity, the elderberry also crosses European oral traditions by creating an abundant symbolic universe. Everywhere, the unclassifiable shrub questions the order of the world and is linked to the invisible worlds. In Brittany, even today, investigations reveal the memory of former propitiatory properties (protection of livestock and stables). For eye care, sore throat and cough, its use mostly required a magico-religious condition, at the time of St. Jean. On the edge of empirical medicine, unlike in other regions where it plays the role of panacea (sudorific, diuretic, pectoral, anti-rheumatic, sedative, analgesic, anti-inflammatory, resolvent dermatological remedy), elderberry does not occupy – or no longer occupies in the collective memory at the time of the investigations – a leading place in the Breton pharmacopoeia.

The examination of a corpus of data extending to the Great West (the linguistic and ethnographical atlas of Chauveau and Guillaume (1975–1983)) and to Auray (*Flora armorica* (2011)), reveals more diversified traditional therapeutic uses of elderberry in the far east of Brittany and in the neighbouring departments (Mayenne, Loire-Atlantique): infusions of anti-inflammatory flowers for the eyes, joints or against respiratory ailments, and also the making of fruit jam. Reading the maps in this atlas shows that these practices were more common south of a diagonal from the region of Muzillac (south-east Morbihan) to the Sarthe (Chauveau and Guillaume, 1975–1983).

The previous note on officinal angelica defines another marker of traditional knowledge, the appearance of which at the western limit of the Rennes basin subsumes a set of determining conditions at the local level. The growing share of fruit flora from the centre to the periphery is also the expression of regional variations, the examination of which sheds light on the Breton ethnobotany domain.

The food taboo concerning mushrooms in large rural areas, in contrast to a relative mycophilia of urban origin, constitutes an ethnomycological marker.

Pure herbs and unclean herbs

With these methodically reported field observations, it becomes possible to draw the outlines of the modes of socialising herbs in Brittany. First, I will take an approach at the crossroads of representations of the body and representations of nature. I underlined the strong marking, in central Brittany, of a border between the edibles and the inedibles of plant origin, and of what this limit signifies about the social order. The physical incorporation of wild herbs is sometimes prohibited because it prevents social incorporation into the dominant group. This mirror effect between plant environment and social environment finds its extension in the way of naming plants.

When Lévi-Strauss (1962) considers that certain foods are “good to eat” because it is “good to think”, he evokes the classification system according to which the eater makes choices on the basis of cultural orientations. If we follow the thought of the English anthropologist Douglas (1986), “the rules of edibility can only be understood structurally, and not by trying to reconstruct the cause-and-effect relationships that one or the other, taken in isolation, may imply. The structural interpretation reveals how rules of

conduct come together to form an intelligent pattern.” Far from responding to utilitarian ends and being a pragmatic means of survival, nutritional and therapeutic facts are part of an organised and classifying system, itself subordinated to the concept of unity and continuity of life. According to Douglas (1966), the symbolic interpretation in terms of pure and impure, or of ritual “pollution” in food and medicine, manifests a social order and marks the boundaries of inclusion and exclusion. The inclusion of unclean food leads to exclusion from society and its purifying norms. We can therefore understand why wild foods are so dangerous in the eyes of the population. Beyond the particularly salient situation in *Kreiz Breizh*, the wilderness in its plant and mycological components is suspect for the whole of Lower Inland Brittany.

Second, the orientation of the study consists of a combined approach of geographic variations in knowledge and variations in flora in order to account for the dynamics of knowledge. The heterogeneity of therapeutic and food practices obeys a ‘centrifugal’ geographical distribution in Brittany, from the centre to the coastal areas, as well as from the centre towards the east.

On the one hand, it appears that a close relationship is emerging between the density of local knowledge and biodiversity. On the other hand, the wealth of knowledge depends on the intensity of social exchanges. One of the specificities of the Breton pharmacopoeia can be understood in terms of trade with the continent, which gradually grew weaker towards the west. The local scale alone is not relevant for interpreting the elements at play in the construction of knowledge and its distribution.

In order to deepen the problem, various lines of interpretation should be considered in the future. We can discuss the impact of the relative geographic isolation, in terms of land and economy in the 19th century: for a notably long time, Brittany lagged behind the industrial changes of other regions. In the aftermath of the First World War, the Breton peasant world did not especially experience a sudden modernisation of agriculture or the unification of the agricultural market. The low population mix may have resulted in slower penetration of discoveries and new practices, both in herbal medicine (the case of hawthorn is an illustration) and in mycology. The transformation of fields of knowledge is therefore not isomorphic and the non-appropriation of knowledge is a factor to take into account in this dynamic.

Thus manifests the task assigned to ethnobotany to reveal the “plant fabric of human history” (Rousseau, 1961), without making us forget that it is as attached to contemporary issues. In fact, everywhere, the disappearance of the peasantry correlated with the loss of specific know-how is accompanied by the decline of important parts of the flora, both domesticated and wild. The double erosion of biodiversity and local knowledge constitutes another approach to the theme of ‘herbs and humanity’.

Notes

¹ *Kreiz Breizh* [Centre Brittany], borrowed from Breton and commonly used in French to designate this micro-territory.

² It was supported in 2013 by fellow ethnobotanists and cyclists, Julie Le Bigot and Emilien Henry.

³ Linguistically, Brittany is divided between two vernacular languages. Spoken Gallo, a Roman language, occupies the geographical area of eastern Brittany, known as Upper Brittany. The Breton language is spoken in the western part, which corresponds to Lower Brittany.

⁴ The field survey was expertly conducted in 2015 by a student, Clément Nivet.

⁵ The inventory was sent to me before publication. With thanks.

⁶ In this specific case, the observation echoes the conception of “primitive classifications” put forward by M. Mauss and E. Durkheim: social categories make it possible to understand society and serve as models for the conceptualisation of biological categories (Durkheim and Mauss, 1903).

⁷ Like all of northern Europe where the walnut is etymologically called “French nut” – *gallchro* (in Ireland), walnut (England), *walnüsse* (Germany), *valhnetur* (Iceland), etc. The name specifies the geographical origin of the fruit, imported from the south of France.

⁸ Such a body of information goes against the stereotypes, which means that “Bretons are closer to nature than their contemporaries” (Bertho, 1980) and *a fortiori* in central Brittany.

⁹ *Tousseg* has the etymological origin of the Latin *toxicus* (“poison”).

¹⁰ The Rennes basin enjoys a slightly warmer climate and richer sedimentary soils than the soils of central Brittany.

¹¹ The meadowsweet is widely represented in the region’s wetlands and river banks. By contrast, in the Morvan region, Crosnier (1998) describes it as a panacea and declares no less than 22 therapeutic indications.

¹² The making of *pommé* is only mentioned from the Rennes region (*La Liètt* archive collection). This culinary tradition consists of the slow cooking of apples, which allows a kind of molasses to be obtained.

¹³ Ille-et-Vilaine benefits from a climate with a more marked continental influence, with early spring warming which is decisive for the fruit flora. In general, animal and plant biodiversities are greater in the east and south-east of Brittany.

¹⁴ Personal data collected on the island of Bréhat; plant used for the care of cystitis (and the cleaning of glass bottles).

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HEALING THROUGH PLANTS: RELATIONSHIPS AMONG KNOWLEDGE SYSTEMS IN THE BRAZILIAN PRESS OF THE 1970s¹

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Introduction

In 1930, the Brazilian Medical and Pharmaceutical journal (*Revista Brasileira de Medicina e Farmácia*) published an advertisement for a medicine used to expel intestinal worms. Two images, in the ‘before and after’ fashion, were shown as a means to try to convince the reader that industrialised medicine was superior in relation to ‘old-fashioned methods’ used as vermifuge: the first scene showed a woman administering an overflowing spoon of remedy to a resistant girl and in the background a crescent moon was partially seen in a misty sky. The second image portrayed the same characters but, this time, the woman was offering a pill that was enthusiastically accepted by the smiling girl. To underline the superiority of the pill, the statement at the end of the advertisement was categorical: “It can be given on any moon”.²

The rise of industrialised medicines occurred concurrently with changes in the ways of producing, selling and representing pharmaceutical products. In Brazil, this happened at the same time as the growth of drugstores, whose model mirrored the US marketing style. The changes in the Brazilian pharmaceutical industry and the increasing number of products being introduced from abroad, which happened mainly after the 1920s and expanded after the Second World War, also contributed to the process.³

These transformations significantly changed the way medicine was represented.⁴ Its symbolism became increasingly charged with the idea of

a product resulting from the efficacy of medical science whose exponent was the pharmaceutical industry. Both biomedicine and industry promised to be joint forces to overcome diseases and control body processes beyond 'natural cycles' that occurred inside or outside the organism, as showed by the advertisement for vermifuge mentioned at the beginning of this chapter. The pharmaceutical industry presented its products as superior to those that were manufactured by pharmacists in their small laboratories. The medicine was also presented and sold as a consumer product.

The transformation process of biomedical therapy, which is represented by industrialised medicine, was enabled by the development of many substances, such as antibiotics, cortisone and psychotropic drugs, which peaked in the 1950s and 1960s across the world, especially in regions reached by the pharmaceutical industry. However, biomedicine's superiority suffered setbacks with the growing number of iatrogenesis cases caused by medicine, such as thalidomide,⁵ and with questions that considered the patient only through the lens of a disease, technological dependence for diagnosis, and the dehumanisation of relations between physicians and patients.⁶

The biomedicine crisis sparked the interest of health professionals and users in the study of medicinal plants as alternative medicine. At the same time, national and international guidelines boosted biomedicine to use plant resources that encompassed therapeutic possibilities. A third segment, formed by those who practised and used medicinal plants informally based on various non-academic knowledge systems, was also given prominence in the discourse that circulated in the Brazilian press addressing the use of medicinal plants. This chapter aims to analyse how, in this context of interest for herbal medicine, these various knowledge systems related to medicinal plants and were presented to the general public.

The history of plants revealing relationships

The history of herbal medicine as a tool to understand different historical contexts is the object of reflection by researchers who present proposals that are often complementary. Susan Francia and Anne Stobart highlight the challenges and possibilities of studies centred on the intersection between the use of medicinal plants and the history of medicine, proposing a definition to the research field:

Systematic enquiry to understand and explain the supply, knowledge and use of plants incorporating peoples' beliefs, knowledge and involvement in past therapeutic practices in context of health and illness.⁷

The researchers suggest a guiding framework that comprises different approaches to the history of herbal medicine based on health and disease processes. This scheme covers three themes and the studies are classified according to the focus on plants, people or practices.⁸

Francia and Stobart's framework can be complemented by Samir Boumediene's reflection on what herbal medicine is. To him, plants are knowledge-material that, when in relation to human beings, trigger a two-way transformation process. As the plant is transformed during preparation for human use, it modifies its user through the choice and consumption process.⁹ The use of a plant, therefore, is never random or meaningless; on the contrary, it is governed by many variables.

The choice of what one can or cannot swallow is a political issue that involves what is acceptable to certain groups as a medicinal substance in a broad sense, which knowledge systems are appreciated and those that are not, and which agents are recognised as being socially qualified to make decisions about the consumption of medicinal plants.¹⁰ In the context of this chapter, the proposals by Francia and Stobart, and Boumediene, instigate the reflection on which medicinal plants are chosen by the media to be presented and how they are linked to specific knowledge, whose narratives establish dialogues at times and are in dispute at others.

The choices of certain plants can be a good indication about the relationship of human beings with their world, in line with the view of ethnobotanist Pierre Lieutaghi.¹¹ He highlights the impact of written influences on the dissemination of knowledge of medicinal plants; a process initially more centred on orality and geographically constrained. New ways to promote the expansion of information about medicinal herbs have been gradually introduced, and today, for example, they range from plant recognition workshops for laypeople to websites and, as such, should be recognised as sources for the development of ethnobotanical studies.¹² In the context of this research, namely Brazil in the 1970s, newspapers were an important medium for the spreading of herbal knowledge in a country where urbanisation was increasing and printed media played a considerable role as a source of information.

The role of newspapers in widening the use of medicinal plants

Although the spreading of knowledge on medicinal plants is often oral, written sources should not be ignored as they provide other means to understand, for example, the social representations constructed for health and disease having medicinal plants as a reference.¹³ They also allow the observation of how academic knowledge and empirical knowledge are presented, interconnect, converse, or mutually dispute spheres of influence¹⁴ Another observation on historical sources of herbal medicines, made by Aline Mercan,¹⁵ is quite pertinent: oral and written language develop different knowledge because they probably derive from different constructions of thought.

While oral transmission of knowledge allows greater flexibility of reinterpretation and requires a direct contact with plants, the written form restricts itself to what is essential, useful and more pleasant in relation to the plant. However, the researcher alerts that this dichotomy is never absolute, as the oral and written transmission forms influence each other and the knowledge of contemporary urban generations is strongly marked by the written form, possessing more global, and fewer local, characteristics.

The sources chosen for this chapter are two important Brazilian newspapers during the 1970s. After a keyword search carried out at the Brazilian National Library, I identified articles on the topic mainly in two major newspapers: *Jornal do Brasil* and *Diário de Pernambuco*.

Jornal do Brasil had a high circulation and, together with two other Rio de Janeiro papers, covered 80% of newspaper readers in Rio.¹⁶ It was created in 1891 in Rio de Janeiro and it was part, during the 1950s, of the Brazilian press modernisation process. Between 1960 and 1970, it underwent changes in its layout and the organisation of the editorial team, with the addition of a section called *Caderno B*, which was a space for articles on culture and entertainment.¹⁷ A survey conducted by the newspaper in 1972 indicated that the profile of its readers was middle-class to wealthy, ranging from 30 to 50 years in age, and with a slight male predominance.¹⁸

Diário de Pernambuco, published in Recife since 1825, is the oldest newspaper in circulation in Latin America. In the 1970s, it also went through changes in the editorial and printing processes, hiring the services of major international agencies, and keeping branches in several capitals in

the north-east.¹⁹ The study of these two newspapers, published in different Brazilian regions, makes it possible to compare narratives on medicinal plants in two geographical spaces. This allows the identification of a regional diversity of interests and discourses breaking, albeit partially, the homogeneity of a Brazilian history centred in the south-east region of Brazil, and the dichotomy between national history and regional history.

Medicinal herbs and folk healing

In the period investigated by this study, medicinal plants were part of healing systems whose cosmologies were different. These plants belonged to a market of healing options supplied to the general public. The written sources consulted for this research revealed the existence of narratives on herbal medicine constructed upon at least three types of medicine: folk, biomedicine and alternative. The concept of folk medicine is quite broad. Here, I refer to a system encompassing a high degree of shared knowledge between practitioners and the public, in addition to the absence of an academic background requirement for its practice, and one that includes a wide and diverse spectrum of conceptions on health and disease.²⁰

When it comes to establishing the foundations of folk medicine in Brazil, it is possible to trace the classic reference to its formation through the participation of elements from European, African and indigenous practices, in a generalising framework that erases conflicts, disputes and silencing, which were part of this 'blending'. The most recent historiography has shown to what extent biomedicine, of European origin, has supported the distrust of other medical systems since its establishment in Brazil, in its pursuit of hegemony.²¹

Marília de Oliveira proposes several areas of agreement among folk medicines, such as the interpretation that the body is the means where interactions occur, involving not only the physical but also the psychic, social and spiritual dimensions of human life. Considering this cosmology and among other therapeutic elements, healers use plants belonging to their local biodiversity, with knowledge originated from interethnic contact as a basis. *Benzedeiras* (female spiritual healers) are examples of this practice, which uses medicinal plants and prayers from varied origins for healing rituals.²²

How did newspapers deal with the relationship between folk medicine and medicinal plants? Considering the chosen sources, both newspapers published news reports of the use of medicinal plants by folk healer

agents, with a greater number of reports in *Diário de Pernambuco*. Recife's newspaper described places where it was possible to purchase medicinal plants, underlining the role of *Mercado São José*:

Pernambuco state has one of the most picturesque markets in the world – *Mercado São José*, maybe the last haven for Pernambuco's tradition to remain authentic in a neighbourhood already devastated by redevelopment [...] A great variety of products are sold there, from herbal medicines, leather, clay, and wood handcraft items, perfumes, music albums, footwear, folk literature booklets, fruit and even comic books.²³

Jornal do Brasil also published an article on Recife's *Mercado São José*, describing it as a cheerful and colourful place, where "curiosities" such as "medicinal plants 'that heal all types of diseases' are sold."²⁴ To the exoticism of the place, the Rio de Janeiro paper added a taste of nostalgia, referring to a trip to the market as "a return to the past" of Recife. Both articles indicated the current way of selling medicinal plants, in kiosks in public markets. Another means of selling roots, leaves or manufactured folk medicines was through stalls set up on the streets of the city, as another piece in the same newspaper demonstrated.²⁵

Herbal medicine was also positively conceptualised regarding its relationship to the geographic space; that is, its existence in the countryside. When reporting a kite contest that took place in the countryside of Rio Grande do Sul, *Jornal do Brasil* described the event, which happened on Good Friday, as "an opportunity for the population to harvest medicinal herbs such as *marcela*, *cancorosa*, wormwood, and gale of the wind."²⁶ Space and time merged to create a positive image for the use of herbal medicine. Plants were perceived as connected to a place unspoilt by progress, which had the fast-paced time of big cities as a challenge to their use.

Learning about medicinal plants was subject to identifying them in the natural environment, and to the spreading of knowledge acquired through empirical experience as well as directly with folk healers. Thus, for herbal medicine, urban space was one of the villains in the neglect of its knowledge, as the title of the article "Herbs, remedies that cities have been forgetting" pointed out:

During our grandmothers' time, chemists started in the backyard, garden or vase, where herbs were planted. They were the basis of homemade medicine supported by tradition. The healing value of teas was not disputed and their virtues were praised in dusty treaties and delightful almanacs.

This therapy declined with the growth of the cities, although it remained popular in rural areas and is still favoured by many residents of big cities, mainly poor people, who find cheap remedies for their illnesses in medicinal plants.

To what extent would this homemade medicine be nothing more than a belief? Or, would one find in the naïve infusions answers for stresses?²⁷

Therapy using plants as folk medicine was presented as something belonging to lower-income Brazilians. This economic condition was positively constructed at times, connecting the use of plants to the simple and healthy lifestyle in small cities, but undervaluing its use at other times, linking it to a lack of therapeutic options due to poverty. The use of medicinal herbs as a resource, considering the government's contempt for health, was also the object of the following article published in *Jornal do Brasil*:

The population is left to its own devices when it comes to the prophylactic issue [...] And this must be the reason why in this region – plagued by endemic diseases and hopeless statistics – folk and faith healers have free pass, are sanctified when they get it right, and make good money by selling miraculous jars for Cr\$5,00 capable of healing people from worms, soothing the nervous system, and even reigniting the sexual fire ‘to those tired husbands who arrive home late and just want to sleep’, as it is proclaimed, every afternoon, by remedy sellers known as Root Doctors to dozens of people, at Pacificador square, in Caxias.²⁸

Even though they construct opposing representations on the use of medicinal plants, both articles above referred to problems “of urban life” caused by a fast-paced lifestyle that could supposedly be cured or mitigated by medicinal plants. Regardless of whether agreeing or not with the adoption of folk herb medicine, both articles signalled the existence of diseases that were the result of a lifestyle marked by constant tension.

The recommendation to use medicinal plants was present in *Diário de Pernambuco*. When describing Caruaru market, its sellers and customers, the newspaper provided a list of herbs, many of Brazilian origin, through a regional language that described diseases and plants:

Pink porcelain lily leaf works for high tension; arueira bark works for cleansin’ the womb and ovaries; quixaba bark heals operation cuts, stab and shot wounds, overturned lorry injuries, and body pain, except rheumatism; “leopard” tree seed pod heals chickens’ sniffli’ and a hit from someone. It’s possible to take it in cachaça. Cumaru bark works for head constipation and leg rash; angico bark can be taken in cachaça, it works as

a remedy as well as an aperitif; lemon balm is a miraculous remedy for stomach ache; while wild loofa heals sinusitis and toothache, working as well as new blood in animals.²⁹

In revealing a specific nomenclature for plants and body parts, and suggesting herbal remedies, the above description highlights disease as a physical evil. However, in the folk medicine field, the magical dimension of health and disease was very much present; *Diário de Pernambuco* did not avoid emphasising this characteristic. In articles that addressed spirit-healing practices and those performed through *Candomblé*, *Umbanda* or other indigenous rituals associated with medicinal plants, the newspaper indicated that health could be influenced by supernatural aspects. One of the articles even sought to endorse African healing practices:

For centuries, doctors shunned spiritual healers, only considering the illusory aspect of their practice. However, traditional African spiritual healers do not simply act through amulets, exorcism or scarification on certain parts of the body. They are also true healers, who inherited ancestral rituals and techniques for the use and therapeutic power of certain medicinal plants that they keep secretly in their minds.³⁰

The justification, constituted by the author of this article, helps us understand how science rejected healing practices that were not under its control. On the other hand, the article distinguishes healing practices using amulets and exorcism from the knowledge of medicinal plants, with the latter being more reliable. In another article that linked medicinal plants to indigenous use, folk knowledge was presented as a source for pharmaceutical research on medicinal plants:

Following folk medicine instruction, however, is not an easy endeavour. Professor Nuno Álvares Pereira has already travelled miles and miles through *sertões* – northeast hinterlands – searching for a specific herb indicated by a simple country person to heal one thing or another. The task got harder as his search went on because he would be given a single name for a plant that could be a family of plants, increasing the number of plants to be studied.³¹

The identification and nomenclature of medicinal plants by the layperson could cause conflict with science, making the communication between these two knowledge systems more difficult. Besides language, the method of how folk knowledge on plants is constructed was not believed to be efficient. For this reason, biomedicine used its own resources and paradigms when appropriating the popular therapeutic repertoire.

Biomedicine and the hunt for medicinal herbs

The introduction of this chapter briefly describes how manufactured medicine came to be perceived as a more reliable therapy than the use of other substances, such as medicinal plants. This replacement was presented as the result of the ‘natural’ course of history, according to an article in *Jornal do Brasil*:

In the past, we used mustard and flaxseed. Then, medicinal plants, plaster – the *healing wonder* – ointments, and ice bags appeared. Now, muscle pains and rheumatism can be treated using self-activating US compresses that in 10 seconds are hot (83.3°C) or cold (1.2°C).³²

The therapeutic use of manufactured medicine was shown as the inevitable result of technological ‘evolution’ and biomedicine was intrinsically part of this process. However, as Brazil relied on the foreign pharmaceutical industry, medical science started to become keener on medicinal plants. In the 1970s, Brazilian government programmes were interested in researching and producing medicines using medicinal plants, constructing a series of concepts on the relationship of plants and science. These representations were published by the two newspapers in several articles, reporting the creation of research institutes at times and suggesting this need at others.

The relationship between biomedicine and medicinal plants was mainly presented through a positive notion of progress linked to science, where folk knowledge was just the initial step in understanding the functioning and proof of the effectiveness of medicinal plants. This idea allowed its use, as long as it was endorsed by scientific research methods. An article from *Jornal do Brasil*, about the disappearance of medicinal plants due to deforestation, reported:

Living among thousands of other species and known by names that vary according to the region they are from, Brazilian medicinal plants only stand out from the common vegetation by the eagle eyes of a *caboclo* [mixed indigenous Brazilian] that uses or prescribes them as remedies, or when it is foraged by explorers.

[...] If it were lucky to be found by a researcher, even if uprooted, at least it would have a more glorious end than that of turning into ash or coal: it would go to a laboratory as it currently happens to about 14,000 species of plants from several countries being scientifically studied in institutes around the world.³³

Through this relationship, folk medicine was perceived as a necessary stage of knowledge that should be tested by scientific research. *Caboclos* could know how to identify medicinal herbs, but their knowledge about the effects of plants was not relevant to biomedicine, which needed to apply its own protocols to plants.

By placing itself as an indispensable source for the production of knowledge in the use of medicinal plants, biomedicine reinforced its dominant role in the healing market. News from both newspapers on scientific research using Brazilian medicinal plants was plentiful and highlighted the importance of science in corroborating the efficacy of Brazilian medicinal herbs. The urgent need for research about medicinal plants in the Brazilian context further developed in the 1960s, when most Brazilian manufacturers were bought by multinationals that invested in synthetic products as opposed to medicinal plant-based ones. At the same time, university courses in the health field refrained from teaching about medicinal herbs.³⁴

The Medicine Centre (CEME) was created in 1971. It was responsible for organising the production and distribution of medicines in the country and conducting research on Brazilian medicinal plants. Both the newspapers wrote many articles on the creation of CEME and its development. In 1973, an article from *Jornal do Brasil* reported the first Symposium of Medicinal Plants from the Amazon, in Manaus, under the guidance of CEME “that aims at sparking Brazilian laboratories’ interest into the ‘fabulous potential of local medicinal flora’.”³⁵ The interest in Brazil’s north-eastern plants was also displayed by the Northeast Natural Resources Fund (FURENE), which was part of the Northeast Development Superintendence (SUDENE) that, in partnership with the Federal University of Paraíba (UFPb), suggested a coordinated action plan:

1 – to identify and collect the material for investigation; 2 – to extract drugs separating, purifying and identifying the therapeutic substances; 3 – to assess the activity of the extracted substance, either from a microbiological (toxicity and inhibitory activity) or macrobiological (toxicity and specific pharmaceutical activity) viewpoint.³⁶

The description of the steps of research in this article revealed a working protocol with little room for flexibility, which was well suited to scientific thinking. Even the language indicated that the construction of knowledge was restricted to a technologically equipped space, intended to be operated by those who possessed academic knowledge. In pharmacology, the medicinal plant was reduced to “therapeutic components”, with the

researcher's task being to identify them. Just as the body was composed of "parts" in biomedicine, having different specialised roles, so could medicinal herbs be dismembered, discarding all substances that were not "active ingredients":

Plants prepare and store a huge variety of organic substances that, when isolated, can be used for several ends, especially in the fields of medicine, nutrition, and manufacturing. The study of these substances has developed to such a point, in recent decades, that it has become a field in its own right, called Phytochemistry.³⁷

Attempting to use medicinal plants as raw material for medicines was quite a challenging process, which did not seem to have produced substantial results, at least during the time investigated. In 1978, *Jornal do Brasil* reported that CEME would use the campuses of north-eastern universities for the required research, but it would only invest resources if private companies were to produce medicines based on the results.³⁸ Despite efforts made by universities and the creation of specific projects, such as the Flora Programme,³⁹ the long process of bringing CEME closer to medicinal plants research seems to have been unsuccessful⁴⁰ at the time, providing results only in the early 1980s.⁴¹

These attempts to identify the Brazilian medicinal plants and their healing potential for the development of medicines were ways of keeping national laboratories open, considering the dominance of the sector by multinational companies.⁴² Apparently, medicinal plants, even when introduced into the realm of science, ended up representing a cheap way of obtaining therapeutic treatment for the industry because of the national impossibility of developing medicines from synthetic sources.

Several alternatives for plants

Notwithstanding the success in eradicating several diseases, the biomedicine crisis, described at the beginning of this chapter, was the catalyst for the growth of other medicines whose paradigms were not centred on Cartesian mechanisms. From a wider standpoint, it is possible to notice that these 'alternative medicines' were in consonance with the escalation of a general question about the technocratic consumer society in the 1960s, better known as the 'counterculture'.

In Brazil, the counterculture peaked in the 1970s, in the midst of a military dictatorship.⁴³ Although Rio de Janeiro was an important hub for the dissemination of demonstrations, other Brazilian regions also participated,

including Brazil's north-east. Protests were not restricted to state capitals, spreading around the country through the media.⁴⁴ An offshoot of counterculture – the ecological movement – inspired the perception of nature for non-utilitarian purposes, as something to be preserved, and of which human beings were part of.⁴⁵ This counterculture strand, combined with ideas from Eastern philosophies, was incorporated into the health field through alternative medicines.⁴⁶

Alternative medicines can be associated with the counterculture for having a political character in the criticism of the dominant medical system.⁴⁷ However, one cannot always detect this protest characteristic in the so-called alternative medicines. For example, it was not part of the process of recognising homeopathy and acupuncture as biomedicine specialties in Brazil in the 1980s and 1990s. It is also necessary to remember that the WHO created the term 'alternative medicine' in the 1960s and encouraged its use in the 1970s in developing countries, not considering these medicines necessarily as antagonist to biomedicine.⁴⁸

Besides being a polysemic term, there are other nomenclature proposals for alternative medicine, which are relevant to this discussion. Roberta Bivins suggests the use of heterodox medicine, which embodies the notion of opposition to orthodox biomedicine. In addition, the researcher proposes the cross-cultural medicine concept, which includes medical knowledge and practices that have crossed cultural frontiers.⁴⁹

The two types of alternative medicines that appear associated with medicinal plants in the newspapers that were studied certainly have crossed cultural frontiers of knowledge. The first – homeopathy – was introduced into Brazil in the 19th century by a French medic, Benoit Mure,⁵⁰ and the second – Chinese medicine – by Japanese immigrants, also in the 19th century.⁵¹ Both were recognised as alternative medicines in the 1970s.

How were alternative medicines and medicinal plants interconnected? Regarding homeopathy, the relationship was one of some confusion between them to the extent that they were almost synonymous, as seen in "Medicinal herbs defy time and keep clientele":

Mulungu used as a tranquiliser, *douradinha-do-campo* to treat boil and wounds; *jurubeba* to fight liver diseases, are some of the odd names of remedies extracted from flora and adopted by 30 million Brazilians, most of them prescribed by homeopathic medicine.⁵²

In this piece from *Jornal do Brasil*, the relationship between medicinal plants and therapeutic prescription did not comply with homeopathic principles of individualisation of patients. In homeopathy, remedies follow the ‘like cures like’ principle; that is, a medicine that causes symptoms of a disease in a healthy person would heal these symptoms in sick people.⁵³ Homeopathic remedy is not prescribed for an illness but for the individual, and thus the description in the newspaper was more adequate for an allopathic use of the medicinal plants listed.

The end of the text recounted an interview with the owner of the De Faria laboratory, in Rio de Janeiro, explaining the stages – dilution and succussion – to produce remedies from plants. Succussion and dilution are the steps for manufacturing homeopathic remedies that receive the most criticism from biomedicine; the latter step, particularly, because sometimes it removes all molecular traces of substances. Dr. De Faria, however, emphasised the importance of these two homeopathic processes, as the therapeutic action was in the energetic forces of the plant.

In reporting that homeopathic medicine was made from medicinal plants, the article might have added to the misunderstanding in mixing phytotherapy and homeopathy, since, although plants are used in homeopathy, so too are minerals and fauna.⁵⁴ However, in defending a therapy through “energy”, it indicates to readers other possibilities of understanding health and illness opposed to those of biomedical materialism.

Another alternative medicine with close links to medicinal plants was an even stronger example of cross-cultural medicine: Chinese medicine. Several articles on Chinese medicine, its philosophical basis and its methods in both newspapers that were studied showed that the topic was of public interest in the 1970s. This decade was symbolic for Chinese medicine in Brazil, since it was when the Brazilian Association of Acupuncture was founded, as well as the first Chinese medicine courses were offered to non-Asians.⁵⁵

The relationship between Chinese medicine and medicinal plants followed the spread of acupuncture as a therapeutic method due to using mugwort for increasing the circulation of acupuncture points and as an ingredient for medicines.⁵⁶ There was a close relationship between the increase in interest for medicinal plants and the increase of “Eastern culture” in Brazilian everyday lives, according to *Diário de Pernambuco*, especially in more urban centres:

In capitals, however, it was only a few years ago that we resumed talking about herbs, as the macrobiotic diet, yoga, and acupuncture were introduced to the western world. The assimilation of eastern culture by the western world is happening smoothly. Modern means of communication, mainly television, newspapers, and magazines are tapping into it, taking advantage of a modern concern with the physical body.⁵⁷

An article from *Diário de Pernambuco* highlighted the Chinese pharmacopoeia for its tradition, variety and affordability, drawing attention to philosophical principles that guided the action of medicinal plants:

[...] it is impossible to explain the action of medicinal herbs in patients without referring to the traditional Chinese way of thinking. Indeed, illnesses are considered a rupture between man and the cosmos (heaven and earth in Chinese). The cure relies on re-establishing the balance, which is synonymous with health, of **Yin** (negative) and **Yang** (positive). [...] each plant has precisely a Yin action and a Yang action and pharmacists have fought, over centuries, to determine their healing effects.⁵⁸

The description of the action of medicinal plants in Chinese medicine indicated a logic that established a close relationship between human beings and nature, where medicinal herbs would act to restore the balance of forces. Like homeopathy, Chinese medicine claimed health and illness as processes of balance and imbalance, where plants had an important role in re-establishing health.

The most direct reference to the use of Chinese plants in the two newspapers was with regard to ginseng. According to *Diário de Pernambuco*, the plant was brought to Brazil in 1974 and it was the object of study of businessperson Carlos Alberto Monteiro, who researched it in London in 1972 and later founded the Brazilian Organic Group to continue his study. The root was thus presented by the newspaper as follows:

Ginseng has been used as a medicine for 5,000 years. During these fifty centuries several generations, social systems, medical practices and medicines have fallen into oblivion. However, ginseng still exists.⁵⁹

Regarding the use of ginseng, a powerful discourse in its favour was constructed through tradition. This notion was also evoked to justify the use of medicinal plants in general, referring to the importance of this therapy for European tradition or to Brazilian indigenous people.⁶⁰ However, for ginseng, this exotic value was connected to a quite ancient medicine that seemed unchanging. Mercan affirms that the criterion of tradition is very frequent in discourses that want to corroborate a

therapeutic practice. Nevertheless, tradition indicates that a stability of practices is unlikely to occur.⁶¹

Ginseng's introduction into the Brazilian market occurred through products and services that were part of a 'natural' healing market, which was also connected to alternative medicines. In 1977, Monteiro founded the Natural Medicine Laboratory: Emperor Ginseng in Niterói (Rio de Janeiro) and the Biological Research Centre in Minas Gerais, which was responsible for the cultivation of medicinal herbs using natural fertilisers. The laboratory also sold *guaraná*, native to Brazil.⁶² An article from *Jornal do Brasil*, which aimed at introducing the laboratory, drew a parallel between the two plants and described ginseng's effects:

Ginseng, of which the roots are used for therapeutic purposes, with a humanoid shape, hence the name ginseng that means "man's essence", is a regulator in the central nervous system. In the body, it is invigorating, allowing people to boost their performance at work and, consequently, improve their state of mind.⁶³

The account of ginseng's effects in this article did not include any philosophical element of traditional Chinese medicine, which challenges the notions of permanence and homogeneity – characteristics that could be considered traditional. On the contrary, the description used physiology concepts that indicated an appropriation of the plant by biomedical logic. It is interesting to note that, for the effects, the idea of health was associated with the ability to work, which is an important representation of the 20th century urban context.

Monteiro and his laboratory were the subject of several articles, not only in Rio de Janeiro and Recife newspapers, but also in magazines such as *Manchete*, suggesting a likely advertising investment. An article from *Jornal do Brasil* introduced Monteiro as a member of esoteric study groups and his photograph, showing long hair and a beard, suggested the image of a hippie.⁶⁴ In this article, his initiative of founding the Emperor Ginseng laboratory had been linked to reports of other followers of an 'alternative' lifestyle that incorporated natural medicine as a form of healing.

Equally difficult to define, natural medicine conceptualised health as a state supported by the harmony of natural forces through elements such as medicinal herbs.⁶⁵ 'Natural' is a feature claimed by many alternative medicines and is vague because it does not indicate a specific medical

system. The adjective expresses an understanding of nature as a healing power ignored by biomedicine.⁶⁶

In *Jornal do Brasil*, the column *Natureza* by the naturalist and poet Leonardo Fróes represented a source of information for those who intended to live their daily lives closer to nature. Medicinal plants featured frequently in his advice:

Even if they are no longer widely used, medicinal plants – the basis of a tradition that goes back to the very origin of human culture – are still found for sale in almost all open markets and some specialized shops, such as Flora Basileira [...], or Droga Flora [...] that offer certain exotic products and still work in a pleasant atmosphere evoking the past.

Regardless of their therapeutic value – which few people from rural areas would doubt – for those who love nature, such products and plants provide an endless fascination. Perfumed sachets, incense, essences, roots and strong spices will be used for different ends at home, while producing plants, from seedlings, might be tried by those who are patient enough.⁶⁷

In Fróes's column, one can notice the erasure of boundaries for adjectives qualifying a plant. Whilst herbs could be medicinal, they could also be food, decoration, or a source of entertainment and pleasure. The natural, healthy lifestyle encompassed more than a therapeutic choice and included a way of life that questioned the distance between human beings and plants imposed, for example, by researchers who used scientific methods that made plants their research object. Incorporating medicinal plants into one's daily life was an invitation to the column's readers who wished to have nature as a place where human beings belonged.

Conclusion

This chapter aimed at showing the relationship between different medical knowledge systems and medicinal plants presented by two major Brazilian newspapers in the 1970s, which was a re-evaluation period for herbal therapy. Although the context recognises this reawakening to alternative medicines, my proposal is to comprehend that the interest in Brazilian plants was not restricted to one type of medicine; conversely, news regarding medicinal plants revealed a rich universe of representations about health and disease, and a search for legitimacy by different medicines that used medicinal plants.

The debate about the validity of the use of plants had two main pillars: temporal and spatial. The first pillar, which opposed tradition and progress, constructed an ambiguous image where a long period of use endorsed the efficacy of medicinal plants by European herbal, Brazilian indigenous, or Chinese medicine. This validation through tradition encompasses the idea of immutability and homogeneity of practices that cannot be proven.

On the other hand, the way medical science conceptualises progress proposes a temporal view that includes the idea of the past, even if founded on tradition, that needs to be overcome.⁶⁸ The time when plants and researchers cohabit translates into a dynamic movement towards the future, to what is modern. This notion is incorporated by medical science through research methods and the necessary technologies for scientific knowledge. Despite showing interest in medicinal plants, biomedicine sees them as fragmented and its goal is to extract active ingredients for manufacturing medicine.

The second pillar, linked to the first, contrasts urban spaces against natural spaces. In these spatial dimensions, the relationship between human beings and nature is at play. Natural space is constructed as a positive environment by the different knowledge systems, even if the reasons for it are not the same. While nature is the object of study for science, it is the health source for alternative and folk medicines, being fundamental to the natural lifestyle. Even though sometimes only implicitly, urban space is blamed for inflicting diseases, caused by the tensions of everyday life. It is important to clarify that, however much an attempt is made to analyse the representations constructed by different knowledge systems on medicinal plants, they do not necessarily have rigid borders.

Although my analysis focused on newspaper sources, it is necessary to take into consideration that the universe of written sources is much wider, mainly comprising books of medicinal plants and natural medicine catering for the general public. The publishing market in Brazil in the 1970s was characterised by a steep increase and segmentation of readers, and by the intensification of forms of producing and selling books, giving rise to a variety of publishers that emerged until the mid-1970s.⁶⁹ This important source was not incorporated into this chapter; however, it should also be considered for the construction of representations about the use of medicinal plants by the general public.

By investigating newspapers from two Brazilian regions, I could perceive some differences in the way they approached the subject. Although they both published news on the different knowledge systems that used medicinal plants, *Diário de Pernambuco* stressed the importance of using Brazilian medicinal herbs, frequently citing native species in addition to constructing a positive image of folk healing practices. *Jornal do Brasil*, on the other hand, probably due to the frequency of the column *Natureza*, highlighted the possibility of growing medicinal plants, often mentioning medicinal and cooking uses of European plants adapted in Brazil since the colonial time. Both newspapers published, intensely, news on scientific research of Brazilian flora, which was mainly funded by the government, signalling the importance of the debate on medicinal plants at that time.

Notes

¹ “*Curar através de plantas: relações entre saberes na imprensa brasileira da década de 1970*”, Translated from the Portuguese by Rafael Zaccaron.

² Renata P. Sigolo, *A saúde em frascos*, Curitiba, Aos Quatro Ventos, 1994, 54.

³ Flávio C. Edler, *Boticas & farmácias*, Rio de Janeiro, Casa da Palavra, 2006.

⁴ Claudine Herzlich, *Santé et Maladie. analyse d'une représentation sociale* (Paris: EHESS, 2005), 9.

⁵ Roy Porter, *Blood and Guts*, London, Penguin, 2002, 133-134.

⁶ Susan Francia and Anne Stobart, *Critical Approaches to the History of Western Herbal Medicine*, London: Bloomsbury, 2014, 289.

⁷ *Ibid.*

⁸ *Ibid.*, 4.

⁹ Samir Boumediene, *Une histoire des plantes médicinales du “Nouveau Monde” (1492–1750)*, Vaulx-en-Velin, Les Éditions des mondes à faire, 2016, 21.

¹⁰ *Ibid.*, 9.

¹¹ Pierre Lieutaghi, “C’est quoi, l’ethnobotanique?”, *C’est quoi, l’ethnobotanique?* Actes du Séminaire d’ethnobotanique du Musée de Salagon, 2017, edited by Pierre Lieutaghi, Mane, Salagon, Musées et Jardins, 2019, 9.

¹² *Ibid.*, 8-14.

¹³ Herzlich, *Santé et maladie*, 23.

¹⁴ Francia and Stobart, *Critical Approaches*, 7-13.

¹⁵ Aline Mercan, “Tradition, temporalité, modernité et plantes médicinales”, *Temps des plantes, temps des humains-Seminaire de Salagon* edited by Pierre Lieutaghi and Danielle Musset, Forcalquier, Atelier et éditions c’est à dire, 2014, 153-168.

¹⁶ Ana Paula G. Ribeiro, “Modernizações e concentração: a imprensa carioca nos anos 1950–1970,” *História e Imprensa*, eds Lúcia Neves, Marco Morel and Tania Ferreira, Rio de Janeiro: DP&A/Faperj, 2006, 426-435.

¹⁷ Patricia F. Lima, “Caderno B do Jornal do Brasil: trajetória do segundo caderno na imprensa brasileira (1960–85)”, Ph.D. diss, Universidade Federal do Rio de Janeiro, Rio de Janeiro, 2006, 49.

¹⁸ Ibid, 133.

¹⁹ João B. de Abreu Júnior, Marieta de M. Ferreira, and Ricardo L. Bezerra, “Diário de Pernambuco,” accessed 15 February 2020.

www.fgv.br/cpdoc/acervo/dicionários/verbete-tematico/diario-de-pernambuco.

²⁰ Irwin Press, “Urban Folk Medicine: A Functional Overview,” *American Anthropologist* 80, (1978): 71-84.

²¹ See, for example, Gabriela dos Reis Sampaio, *Nas trincheiras da cura*, Campinas, UNICAMP, 2001.

²² Marília F. S. de Oliveria, *Na trilha do caboblo*, Salvador, UESB, 2007, 93.

²³ Valdelusa Duarte D’Arce, “Mercados Públicos: Tradição Turística,” *Diário de Pernambuco*, 3 August 1975, 3.

²⁴ “Uma volta pelo passado do Recife”, *Jornal do Brasil*, 25 September 1975, 6.

²⁵ “Ervas, remédios que as cidades vêm esquecendo”, *Jornal do Brasil*, 10 November 1972, 40.

²⁶ “Concurso de pipas é atração em Livramento”, *Jornal do Brasil*, 8 April 1977, 13.

²⁷ “Ervas, remédios que as cidades vêm esquecendo”, *Jornal do Brasil*, 10 November 1972, 40.

²⁸ “Doutor Raiz”, *Jornal do Brasil*, 25 February 1975, 14.

²⁹ “O remédio milagroso pode estar na feira”, *Diário de Pernambuco*, 11 May 1971, 10.

³⁰ “Os remédios de todos os santos”, *Diário de Pernambuco*, 10 April 1978, B2.

³¹ “Cura pelas plantas”, *Diário de Pernambuco*, 2 June 1973, 6.

³² “Novas compressas tiram o lugar do emplastro na dor muscular e no reumatismo”, *Jornal do Brasil*, 15 August 1972, 16.

³³ “Plantas medicinais desaparecem”, *Jornal do Brasil*, 13 September 1973, 27.

³⁴ Tania Maria Fernandes, *Plantas medicinais: memória da ciência no Brasil* (Rio de Janeiro: Fiocruz, 2004), 36-39.

³⁵ “Central de Medicamentos fará simpósio em Manaus sobre plantas amazônicas”, *Jornal do Brasil*, 14 January 1973, 33.

³⁶ “Pesquisa do efeito medicinal de 43 plantas do nordeste”, *Diário de Pernambuco*, 24 April 1971, 9.

³⁷ Mariza Pontes, “A luta da erva-cidreira contra as multinacionais,” *Diário de Pernambuco*, 25 June 1978, p.E7.

³⁸ “CEME só financia pesquisa de matéria-primas com garantia total de produção”, *Jornal do Brasil*, 24 August 1978, 17.

³⁹ Fernandes, *Plantas medicinais*, 89.

⁴⁰ Ibid, 96.

⁴¹ Marcos S. Queiroz, *Saúde e doença: Um enfoque antropológico*, Bauru, EDUSC, 2003, 143-144.

⁴² Pontes, “A luta da erva-cidreira,” E7.

⁴³ Christopher Dunn, *Contracultura*, Chapel Hill: University of North Carolina Press, 2016.

⁴⁴ Leon Kaminski, *Contracultura no Brasil, Anos 70*, Curitiba: CRV, 2019.

⁴⁵ Eduardo J. Viola, “O movimento ecológico no Brasil (1974–1986): do ambientalismo à ecopolítica,” accessed 20 February 2020,

http://anpocs.org.br/portal/publicações/rbcs_00_03/rbcs03_01.htm.

⁴⁶ Maria Inês Nogueira and Kenneth R. de Camargo Jr, “A orientalização do Ocidente como superfície de emergência de novos paradigmas em saúde,” *História, Ciências, Saúde, Manguinhos* 14, no. 3 (July–September 2007): 841-861.

⁴⁷ João T. de Andrade, *Medicina Alternativa e Complementar*, Salvador, EDFBA, 2006, 25-45.

⁴⁸ Queiroz, *Saúde e Doença*, 75.

⁴⁹ Roberta Bivins, “Histories of Heterodoxy,” *The Oxford Handbook of the History of Medicine*, ed Mark Jackson, New York, Oxford University Press, 2011, 579-598.

⁵⁰ Ricardo L. Novaes, *O tempo e a ordem: sobre a homeopatia*, São Paulo, Cortez, 1989.

⁵¹ Nascimento, *As duas faces da montanha*, 144.

⁵² “Ervas medicinais desafiam tempo e mantem clientela”, *Jornal do Brasil*, 15 July 1974, 12.

⁵³ Olivier Faure, *Et Samuel Hahnemann inventa l’homeopatie. La longue histoire d’une médecine alternative*, Paris, Aubier, 2015.

⁵⁴ Another article, when announcing research on medicinal plants by CEME, induces the same confusion through its title: “Vamos agora à homeopatia”, *Jornal do Brasil*, 23 January 1975, 24.

⁵⁵ Nascimento, *As duas faces da montanha*, 145.

⁵⁶ Mario Chimanovitch, “A acupuntura ao nosso alcance,” *Jornal do Brasil*, 28 June 1972, 9.

⁵⁷ “A volta da medicina popular com a cura pelas plantas”, *Diário de Pernambuco*, 28 December 1978, C72.

⁵⁸ “Com habilidade, os chineses curam pelas plantas”, *Diário de Pernambuco*, 28 October 1977, p. B1.

⁵⁹ Leda Rivas, “Nas plantas, a cura-talvez-de todos os males”, *Diário de Pernambuco*, 27 January 1978, B1.

⁶⁰ “Nas plantas, uma medicina que sempre deu certo”, *Diário de Pernambuco*, 17 November 1975, 1.

⁶¹ Aline Mercan, *Tradition, temporalité, modernité et plantes medicinales*, 153-168.

⁶² Maria Eduarda Alves de Souza. “Guaraná. A panacéia dos índios que aumenta as energias”, *Jornal do Brasil*, 5 March 1979, 4.

⁶³ Idem.

⁶⁴ “Os novos camponeses. Misticismo e ciência Unidos”, *Jornal do Brasil*, 19 August 1979, 4.

⁶⁵ João Tadeu de Andrade, *Medicina alternativa e complementar*, 28.

⁶⁶ Jean-Jacques Wunenburger, *Imaginaires et rationalité des médecines alternatives*, Paris, Les Belles Lettres, 2008.

⁶⁷ Leonardo Froes. “Quem planta seus males espanta”, *Jornal do Brasil*, 28 April 1972, 4.

⁶⁸ Aline Mercan, *Tradition, temporalité, modernité et plantes medicinales*, 153-168.

⁶⁹ Rildo Cosson, *Fronteiras contaminadas*, Brasília, UNB, 2007, 31; Lawrence Hallewell, *O livro no Brasil*, São Paulo, EDUSP, 2017, 797. Hallewell cites the affiliation of around 150 companies to the Brazilian Book Chamber between 1975 and 1984.

PART TWO:

DISPLAY AND UNDERSTANDING OF HERBS

L'ORTIE DANS QUATRE CONTES : ITINÉRAIRE NARRATIF ET SÉMANTIQUE

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L'ortie est une plante herbacée des plus communes. Elle est présente aujourd'hui dans les zones tempérées du monde entier (Astier, 2017). Sous nos latitudes, la plus connue est la grande ortie, *Urtica dioica* L, qui est aussi l'espèce la plus répandue dans le monde. On recense 11 espèces d'*Urtica* (le genre) en Europe et 5 en France. L'ortie, qui affectionne le voisinage des hommes, pousse notamment aux environs des habitations, aux bords des chemins, dans les fossés, dans les vergers et prairies, dans les terrains vagues. Ce caractère de plante commune fait que tout un chacun sait globalement ce qu'est une ortie et reconnaît l'herbacée notamment à ses feuilles vertes dentées et à sa tige recouvertes toutes deux de poils fins urticants. Les nombreuses propriétés de l'ortie prêtent à plusieurs usages : usage alimentaire, médicinal, textile, agricole. Comme le note l'ethnobotaniste Pierre Lieutaghi (1996 : 332), « chaque partie de cette plante semble avoir un usage ». Cette pluralité peut expliquer la longue histoire qui lie l'ortie et les hommes, l'ortie occupant une place importante dans la civilisation humaine (Moro Buronzo, 2011).

En matière d'imaginaire, certaines représentations associées à la plante constituent une facette de cette histoire. « Les plantes sont aliments, remèdes, matériaux des techniques, supports de symboles et de croyances » (Lieutaghi, 2008 : 322). Elles sont pour une part associées à des « constructions mentales et culturelles » (Lieutaghi, 2008 : 323). Pour exemple, dans le langage des fleurs, l'ortie est associée à la cruauté (Tissier, 2014), la trahison (Gouffier, 2010 ; Astier, 2017), la calomnie (Tissier, 2014). Elle symbolise également la franchise (Gouffier, 2010 ; Astier, 2017). En langue française, le nom *ortie* employé dans un sens figuré, indique le *Trésor de la Langue Française informatisé*, désigne tout ce qui est irritant, désagréable, insupportable. Les expressions *être sur des orties* (ne pas être à l'aise), par exemple, *être gracieux comme une poignée d'orties* ou *être aussi aimable qu'une poignée d'orties* (être désagréable ou

peu aimable), ou encore *bon à jeter aux orties* (qui ne sert plus à rien, n'est plus d'aucune utilité) illustrent ce spectre sémantique, que l'ortie doit en grande partie à son caractère urticant. Les nombreux usages et propriétés de la plante laissent cependant penser que les représentations dont l'ortie est l'objet ne sont pas que négatives et présentent une relative diversité.

Le choix effectué est celui d'étudier ce que représente l'ortie en tant que donnée fictionnelle dans quatre contes, dont trois sont des contes merveilleux. La figuration joue un grand rôle dans les contes et un contenu manifeste dissimule souvent un contenu latent (Belmont, 1999). Le conte merveilleux, en outre, fait se côtoyer les mondes humain, végétal et animal. L'ortie en tant que donnée fictionnelle occupe une place dans trois des contes considérés. Sa présence, parce qu'elle est ponctuelle, est plus ténue dans un des contes¹.

Les trois contes merveilleux du corpus sont des contes issus d'une tradition orale et populaire, repris par des écrivains : Jacob et Wilhelm Grimm pour « Demoiselle Maleen » et « La gardeuse d'oies à la fontaine », Hans Christian Andersen pour « Les cygnes sauvages ». L'étude conduite porte sur des traductions². Le quatrième conte, qui comporte une part de merveilleux et s'intitule « La fileuse d'ortie », est une adaptation libre pour la jeunesse par Pierre Delye d'un conte du Nord de la France. Delye, qui est un conteur originaire de cette région et un auteur jeunesse contemporain, indique comme source *Les contes du roi Gambrinus* (Charles Deulin, 1873)³. Cette adaptation fait partie de l'anthologie *Tour de France multicolore des contes sur le dos d'un âne* (p. 99-105), parue en 2006 aux éditions Rue du monde.

Dans une première partie, l'étude comparative conduite examinera des aspects compositionnels et précisera quels sont les ancrages narratifs de l'ortie en tant que donnée fictionnelle : les cadres narratifs, les attaches puis les occurrences narratives de la donnée. Ces ancrages sont le creuset de significations que l'analyse peut associer à la donnée. C'est ainsi que la deuxième partie examinera des valeurs sémantiques : la symbolique du sauvage, l'expérience de limites, la portée axiologique.

Les ancrages narratifs

Les cadres narratifs

Le point commun principal est que les quatre contes parlent de mariage. Mariage entre une fille de roi et un prince - un fils de comte dans « La

gardeuse d'oies à la fontaine » (désormais LGO) - ou un roi (« Les cygnes sauvages », désormais LCS) dans trois contes, entre une jeune fille prénommée Renelde, une fileuse, et son fiancé, sans autre caractérisation dans « La fileuse d'ortie » (désormais LFO). Ce motif du mariage ainsi que le statut des personnages catégorisent pleinement trois des contes, à l'exception de LFO, dans le genre du conte merveilleux. Entre autres traits d'appartenance générique, les héroïnes sont caractérisées par leur beauté, de manière explicite dans LGO et LCS, de manière indirecte *via* un principe d'opposition dans « Demoiselle Maleen » (désormais DM), où la fausse fiancée sur le point d'épouser le prince est présentée comme laide. L'héroïne de LGO, en outre, est la plus jeune des trois filles du roi, celle de LCS la plus jeune de la fratrie composée par ailleurs de onze frères. Le motif du mariage participe d'une dynamique narrative. Il signe la fin du récit dans LGO et LFO. Dans DM, le mariage précède la séquence narrative finale au cours de laquelle le marié découvre que la femme épousée n'est autre que demoiselle Maleen, la femme dont il était aimé sept ans plus tôt. La fiancée, qui lui était destinée se sachant laide, avait demandé à demoiselle Maleen, engagée comme souillon à la cuisine, de prendre sa place. Dans LCS, le mariage a lieu en cours de récit, mais la mariée comme demoiselle Maleen n'est rétablie dans son identité et dans son rang social qu'à la fin du récit, lorsque l'aîné de ses frères raconte l'histoire de la fratrie. L'héroïne n'était jusque là qu'une inconnue, une jolie fille que le roi avait choisie pour sa beauté puis épousée.

Cette idée de reconnaissance, qui est liée à celle d'identité, est également importante dans LGO. Elle contribue à spécifier le cadre narratif des trois contes merveilleux du corpus. Celle qui est appelée la gardeuse d'oies, en retrouvant ses parents grâce au jeune comte qui les a conduits jusqu'à elle, retrouve sa place et son rang ainsi que son apparence physique. Auparavant, ce n'était que le soir au clair de lune à une fontaine qu'elle pouvait retirer la peau qui lui recouvrait le visage, se métamorphoser et ainsi retrouver sa vraie apparence. LGO, de même que les autres contes, relate une phase de passage vers une situation nouvelle. Nicole Belmont (1999 : 160) écrit à propos de LCS que « *Le destin du héros de conte est constitué par un itinéraire qui va des liens de consanguinité aux liens d'alliance*. Le récit décrit un espace transitionnel entre ces deux types de liens. » Les approches anthropologiques ou bien psychanalytiques soulignent la portée initiatique des contes qui font état de rituels de passage de l'adolescence à l'âge adulte (Belmont, 1999). L'âge des héroïnes, lorsqu'il est mentionné, est à cet égard significatif : 15 ans pour LGO et LCS. Le texte de LFO précise juste que Renelde est une jeune fille. La mention d'une durée chiffrée dans deux contes est également

significative : l'héroïne est la gardeuse d'oies pendant 3 ans, demoiselle Maleen avant de devenir souillon puis de se marier reste enfermée dans une tour durant 7 ans. La phase de passage implique que l'héroïne et parfois d'autres personnages vivent des épreuves.

Les attaches narratives

Le motif de l'opposition est à l'origine de l'épreuve ou des épreuves vécues par les héroïnes. Demoiselle Maleen rencontre l'opposition de son père car elle refuse d'être mariée à un autre prince que celui qu'elle aime. Dans LCS, Elisa et ses frères rencontrent l'opposition de leur marâtre, qui fait placer Elisa chez des paysans à la campagne jusqu'à ses 15 ans et transforme ses frères en cygnes sauvages. Au retour d'Elisa, la magie n'ayant pas de prise sur elle, la marâtre rend Elisa méconnaissable aux yeux de son père en la frottant avec du brou de noix, en lui oignant le visage d'un onguent puant et en lui emmêlant les cheveux. Dans LFO, le seigneur Burchard s'oppose au mariage de Renelde en ne donnant pas son consentement. Ce motif de l'opposition entraîne l'épreuve du bannissement ou de l'exil. Demoiselle Maleen est emmurée avec sa femme de chambre dans une tour et y reste 7 ans. Elisa, que son père ne reconnaît pas, quitte le château et part en quête de ses frères dont elle a appris qu'ils ont été métamorphosés en cygnes ; une fois retrouvés, ils traversent ensemble la grande mer, Elisa portée dans un filet par ses frères, pour se rendre dans un autre pays⁴. La gardeuse d'oies elle aussi est bannie et conduite dans la forêt sauvage pour avoir répondu à son père, lorsqu'il avait demandé à ses filles de quelle manière elles l'aimaient, qu'elle l'aimait autant que le sel. À l'épreuve du bannissement ou bien de l'exil se rattachent dans DM et LCS les motifs de l'errance et de la quête, qui représentent deux formes d'épreuve. Une fois sorties de la tour, demoiselle Maleen et sa femme de chambre découvrent un royaume dévasté, sans âme qui vive. Elles partent en quête d'un autre pays d'accueil. Elisa accomplit elle aussi un périple depuis le château de son père jusqu'à la mer où elle retrouve ses frères. Dans ces deux contes, les épreuves s'enchaînent.

Arrivée dans le royaume dont le fils du roi n'est autre que l'homme qu'elle aime, demoiselle Maleen accepte d'être ravalée au rang de souillon de cuisine et de ne pas être reconnue pour qui elle est. Dans LCS, le conte le plus long du corpus et le plus dense en événements, Elisa qui veut sauver ses frères et mettre fin au sortilège suit les instructions de la fée Morgane qui lui a indiqué en rêve qu'elle devait confectionner 11 cottes de mailles à manches longues en fils d'ortie. Parce que notamment Elisa se rend de nuit seule en cachette de son époux au cimetière pour faire provision d'orties,

l'héroïne est victime de l'opposition de l'archevêque qui prétend qu'elle est une sorcière. Elle est enfermée dans un cachot avant d'être conduite au bûcher. Renelde dans LFO est considérée elle aussi comme une sorcière par Burchard, qui dès qu'elle entame la confection de la seconde chemise en fils d'ortie, chemise d'enterrement destinée à Burchard, tombe malade et sent la vie le quitter peu à peu. L'épreuve, similaire pour une part à l'une des épreuves dans LCS, consiste en la confection de deux chemises en fils d'ortie, la chemise de noces de Renelde et la chemise d'enterrement de Burchard. Telle est la condition posée par Burchard à son consentement au mariage de Renelde. Dans LGO, le personnage masculin du jeune comte est soumis lui aussi à une épreuve unique : l'ascension d'une montagne en portant une lourde charge. Cette épreuve est qualifiante en ce sens qu'il reçoit pour salaire de la vieille femme auprès de qui la gardeuse d'oies a trouvé refuge une petite boîte, dont le contenu - une perle - permet au roi et à la reine d'identifier puis de retrouver, guidés par le jeune comte, leur fille perdue.

Les occurrences narratives

C'est dans ce cadre d'épreuves déterminantes pour les personnages dans leur accession à une situation nouvelle et meilleure que l'ortie remplit une fonction narrative. L'herbacée est une composante d'une épreuve dans chaque conte, à l'exception de DM, conte dans lequel les deux occurrences narratives se situent dans le prolongement d'une épreuve, relevant ainsi d'une logique de mise à l'épreuve de l'héroïne. Demoiselle Maleen et sa femme de chambre, bientôt à court de provisions, retirent petit à petit au moyen d'un couteau à pain des pierres de la tour où elles sont enfermées depuis 7 ans. Une fois à l'extérieur, dans leur périple pour trouver un autre pays, elles apaisent leur faim sur un buisson d'orties dont elles consomment les feuilles. Cette occurrence réfère aux vertus nutritionnelles de l'ortie, riche en vitamines, minéraux, acides aminés, protéines et antioxydants (Astier, 2017). En médecine on prête à l'ortie une action reconstituante, reminéralisante et anti-anémique notamment (Tissier, 2014). Plus tard dans le récit, sur le bord du chemin allant à l'église, demoiselle Maleen, qui a pris la place de la fiancée destinée au fils du roi, parle à un buisson d'orties, témoin du temps où elle a mangé de l'ortie. Outre de renvoyer à une dimension référentielle - l'ortie pousse au bord des chemins près des lieux de vie humains -, cette seconde occurrence assure une fonction d'emblème : demoiselle Maleen sans le dire de manière directe dit qui elle est. Elle agit de même en s'adressant également au petit pont de l'église puis à la porte de l'église pour dire qu'elle n'est pas la vraie promise et en

répondant au prince qui lui pose des questions qu'elle pense à demoiselle Maleen. Les deux occurrences ont trait par conséquent au cœur de l'histoire, un enjeu d'identité et de reconnaissance.

Dans LCS et LFO, les occurrences ont elles aussi trait à l'enjeu principal de l'histoire, à savoir respectivement rompre le sortilège et que les frères d'Elisa redeviennent des êtres humains, et pour Renelde de pouvoir épouser son fiancé. Les deux contes font référence aux propriétés et usages textiles de l'ortie, dont la fibre, appelée parfois soie végétale, extraite de la tige, a pour caractéristique d'être souple, résistante et brillante (Moro Buronzo, 2011). Elisa cueille les orties, les écrase sous ses pieds, file puis confectionne les cottes ; Renelde coupe les orties, file, tisse, taille et coud les chemises. Ces différents travaux féminins symbolisent les étapes d'une initiation féminine. « La fille (bonne) à marier est donc avant tout celle qui - une fois pubère - a accepté de se plier aux différentes étapes d'un cursus initiatique qui passe par l'acquisition d'un savoir féminin spécifique, où se lient vie intime et travaux quotidiens. Filer, tisser ou surfiler puis coudre, c'est là le « bon chemin » qui assurera à l'héroïne une transformation épanouie. » (Piarotas, 2008 : 117). Le récit, dans les deux contes, parle également du caractère urticant de l'ortie. Ce caractère urticant est aussi présent de manière implicite dans l'épreuve que doit accomplir le jeune comte dans LGO. Celui-ci parcourt une certaine distance sur un terrain pentu en particulier en portant une lourde charge - deux paniers aux bras, un ballot sur le dos, plus la vieille femme juchée sur son dos qu'il a rencontrée dans la forêt et qui lui a demandé de porter ses affaires. Quand le jeune comte n'avance pas, la vieille lui fouette les jambes avec une baguette et des orties. Une lecture littérale de la fouettée d'ortie peut établir une signification de sensation désagréable et douloureuse. Une lecture plus connotative est possible. En effet, les différentes occurrences narratives de l'ortie entrent dans des réseaux de significations.

Les valeurs sémantiques, la symbolique du sauvage

Dans les quatre contes, l'ortie est étroitement associée à l'idée de sauvage. Les lieux en particulier le signifient dans trois contes. Renelde habite dans une clairière située au profond de la forêt. La vieille femme qui dans LGO fouette les jambes du jeune comte avec des orties habite elle aussi un lieu à l'écart du monde, un lieu isolé entouré de montagnes et d'une grande forêt qui font figure de frontières, de séparations. Arrivée dans un nouveau pays, Elisa trouve refuge dans un premier temps dans un lieu lui aussi synonyme d'isolement et de solitude : une caverne située d'après les indications textuelles dans une forêt près de montagnes. C'est autour de

cette caverne qu'elle collecte ses premières orties. Plus tard, lorsqu'elle a épousé le roi, elle continue de confectionner les cottes de mailles dans un petit cabinet secret, dit le texte, dont le décor reconstruit celui de la caverne. Un autre marqueur du caractère sauvage des lieux est que Burchard dans LFO, et le jeune roi dans LCS rencontrent respectivement Renelde et Elisa lors d'une partie de chasse en forêt, autrement dit dans un espace renvoyant à l'idée de nature.

Les cottes de mailles que confectionne Elisa renvoient à la fois à cette idée de nature - le matériau utilisé, l'ortie - et à l'idée d'humanité - le vêtement comme apanage de l'humanité (Belmont, 1999). Les cottes permettent en fin de récit le passage définitif de la nature à l'humanité, les frères d'Elisa quittant leur enveloppe animale pour redevenir des hommes. Le fil d'ortie signifie d'une manière plus oblique que ne le font les lieux l'idée de sauvage. Il en va de même dans LFO. Renelde n'a jamais filé l'ortie. Lors de la première rencontre avec Burchard, elle file du lin, et lors de la seconde rencontre, de la laine. L'ortie apparaît par conséquent comme un matériau étranger ne faisant pas partie des pratiques. Alors que le lin et la laine renvoient à des activités humaines - la culture, l'élevage -, l'ortie renvoie à ce qui n'est pas humain, à la nature. La forme qu'emprunte la signification dans DM est celle dans le domaine culinaire d'un aliment non cuisiné, non apprêté par la main de l'homme. Lorsque sur le chemin qui la mène à l'église demoiselle Maleen s'adresse à un buisson d'orties, elle dit se souvenir du temps où elle a mangé de l'ortie ni cuite, ni grillée. Cette dernière précision présente l'ortie comme un aliment brut, sauvage. L'idée de sauvage, qui revêt plusieurs formes dans les contes, est symbolique de ce qui n'est pas humain ou différent de l'humain, autrement dit de ce qui est autre.

L'expérience de limites

Aussi les occurrences narratives de l'ortie mettent-elles en jeu une problématique de frontières. Des personnages sont mis à l'épreuve, rappelons-le. Dans ce cadre, l'ortie est associée à une expérience de limites. C'est ainsi que les héroïnes côtoient la mort. La vie de demoiselle Maleen est mise en danger : les provisions sont presque épuisées au bout de 7 ans d'enfermement dans la tour ; un peu plus tard, personne ne lui donne un morceau de pain alors qu'elle est en quête avec sa femme de chambre d'un autre pays au point qu'elles mangent des feuilles d'ortie crues⁵ ; celle que le prince doit épouser la menace de mort pour la contraindre à la remplacer puis ordonne aux laquais le soir des noces de lui trancher la tête après que le prince s'est rendu compte de la substitution.

Renelde et Elisa risquent elles aussi la mort. Tandis que Renelde réalise la deuxième chemise et que telle une Parque elle prend peu à peu la vie de Burchard, ce dernier commande par deux fois à deux de ses hommes de jeter Renelde dans la rivière. La première fois elle est ligotée, la seconde elle est attachée à une grosse pierre. Fait merveilleux, les hommes partis, la rivière s'ouvre, soulève puis dépose Renelde sur la berge avant de la libérer de ses liens. Elisa, pour sa part, tenue pour une sorcière, est condamnée à être brûlée. Les apparences sont contre elle : elle a été surprise se rendant de nuit seule au cimetière où se trouvent des lamies. Le texte précise que l'archevêque et le roi qui l'ont surprise voient les lamies mais pas ce que fait Elisa. La fréquentation du cimetière ainsi que le spectacle des lamies se repaissant de cadavres signifient d'une autre manière et d'une manière symbolique l'expérience du contact avec la mort⁶. L'ortie participe d'une symbolique de la frontière entre monde des vivants et monde des morts. Il est à remarquer que la désignation de *jardin aux orties* se rapporte au cimetière (Gouffier, 2010 ; Moro Buronzo, 2011). Et c'est en ce lieu qu'Elisa et Renelde se rendent pour s'approvisionner en orties.

À cette expérience de la mort peut se superposer selon les contes l'expérience d'une autre limite : un paroxysme de souffrance physique. Le texte de LCS insiste sur l'intensité de la douleur ressentie à travers les détails de la peau ou des doigts brûlés, des cloques, des doigts douloureux. Le texte de LFO évoque les orties qui brûlent les mains, les mains endolories. L'épreuve imposée au héros de LGO est elle aussi pénible et implique un degré de souffrance, auquel contribue entre autres composantes la fouettée d'ortie. Le texte décrit le ressenti du personnage : grimace de douleur, notamment, gouttes de sueur, tremblement des genoux, geignements. Le texte de LCS fait également état d'une souffrance de nature psychique : il indique par exemple qu'Elisa ne sourit pas, que la douleur est installée dans ses yeux, qu'elle souffre le tourment en son cœur. Le personnage fait l'expérience de plusieurs limites. La densité narrative et sémantique est plus importante dans LCS comparativement aux trois autres contes. Elisa fait l'expérience du dénuement, voire de la pauvreté, corrélée à la solitude, quand seule dans la caverne elle commence son ouvrage, quand elle est emprisonnée avec pour uniques affaires une gerbe d'orties et les 11 cottes, quand elle est conduite en sarrau de toile grossière au bûcher dans une charrette sous les insultes du peuple. Le personnage connaît des conditions et des situations opposées à ce qu'il connaissait. Demoiselle Maleen vit elle aussi une dégradation en étant amenée à consommer des feuilles d'orties à l'instar d'être emmurée dans la tour ou de devenir souillon de cuisine. Il est logique que ces différentes expériences, le dénuement, la

souffrance, la proximité de la mort, de par leur nature ouvrent sur des valeurs. Une axiologie est sous-jacente.

La portée axiologique

Des qualités morales se dessinent à travers les actions des personnages. L'une de ces qualités est l'humilité. Demoiselle Maleen, Elisa et le jeune comte acceptent des actions présentées dans les récits comme étant difficiles, pénibles et ne correspondant pas à leur rang. Ce dernier aspect est explicité dans LGO, où il est écrit que le jeune comte veut aussi montrer que les paysans ne sont pas les seuls à pouvoir porter un fardeau. En outre, parce qu'il porte également sur une partie du trajet la vieille femme sur son dos, le jeune comte est quelque peu assimilé à une bête de somme. Dans ce conte, à une signification d'ordre moral se superpose une signification d'ordre sexuel. L'ortie, en effet, plante dédiée à Vénus, a la réputation d'être une plante aphrodisiaque (Gouffier, 2010). Yves Tissier (2014) rapporte que selon une coutume romaine fouetter les parties génitales et les fesses stimulerait le désir charnel. Jean-François Astier (2017) de son côté signale l'effet aphrodisiaque de l'utilisation de l'ortie comme fouet. Sur un plan symbolique, la scène a valeur d'initiation et préfigure l'union avec la gardeuse d'oies. Les significations relatives à l'ortie sont toutefois plus nombreuses du côté d'une lecture axiologique. L'humilité se double même d'abnégation dans le cas d'Elisa, qui se dévoue pour sauver ses frères. Et l'opération prend du temps. Elisa, de même que Renelde, sont confrontées au temps, un temps plus ou moins long, dans leurs travaux, l'une pour réaliser les cottes de mailles, l'autre les chemises. Une autre qualité morale se dessine, celle de la patience. Selon Bianca Lechevalier (2016), les activités de filage et de tissage dans les contes représentent la patience du féminin, ce que l'auteure appelle une passivité active permettant entre temps individuel et collectif l'intégration du féminin dans la bisexualité et la lutte contre la mort.

La qualité de patience s'allie à la qualité de persévérance dans LCS et LFO. Malgré la difficulté de la tâche⁷ et l'opposition d'un tiers - l'archevêque, Burchard -, Elisa et Renelde poursuivent leur ouvrage. Le texte de LFO insiste de manière significative sur les mains qui s'agitent et travaillent sans cesse, sur les doigts qualifiés d'habiles et d'obstinés. La volonté des deux héroïnes apparaît comme inébranlable. C'est pourquoi la qualité de persévérance jouxte celle de courage. Cette dernière qualité est présente dans les quatre contes. Elle l'est sur un mode plus mineur dans LFO, LGO et DM. L'opposition de Burchard à Renelde, qui relève le défi de la confection des deux chemises, place l'héroïne en position de faire

montre de courage. Pour le jeune comte, la réalisation de l'épreuve demandée implique une forme de courage car elle en appelle à la volonté du personnage. Quant à demoiselle Maleen, la lutte pour survivre au sortir de la tour sous-entend courage et force d'âme dans l'adversité. La qualité de courage est davantage mise en avant dans LCS. Elle est mentionnée par la fée Morgane qui demande à Elisa lorsqu'elle lui indique le moyen de sauver ses frères si elle a du courage et de la persévérance. De plus, le texte évoque à plusieurs reprises la douleur et le tourment ressentis par Elisa. L'héroïne est également présentée comme pieuse, le conte ayant une tonalité religieuse. Le récit valorise le personnage, et met en scène un personnage vertueux. Cyrille François (2012), qui examine si le conte des frères Grimm « Les six cygnes » constitue un intertexte, observe que le conte d'Andersen est moins tourné vers l'action, qu'il comprend notamment des descriptions individualisées des personnages et qu'il confirme la vertu de l'héroïne. François (2012) pense que ces différences et d'autres s'expliquent par la poétique d'Andersen, attaché à créer un genre nouveau en racontant à sa façon et en considérant les intertextes comme un répertoire qu'il peut utiliser pour écrire une œuvre personnelle. Le récit de DM valorise lui aussi l'héroïne, mais d'une manière moins marquée et plus conforme à des codes du conte merveilleux *via* l'opposition créée avec le personnage de la fiancée promise au prince. À la parole vraie de demoiselle Maleen s'opposent le mensonge et la dissimulation de la promise, méchante de cœur, précise le texte, qui présente peut-être demoiselle Maleen comme une fiancée fidèle ou constante.

Ainsi, la donnée fictionnelle que constitue l'ortie, qui n'est pas une donnée principale dans deux des contes, LGO et DM, est une donnée rayonnante, au carrefour de plusieurs significations nodales dans chacun des contes, en relation avec les personnages principaux, les lieux, les événements et motifs ainsi que le registre merveilleux. Le parcours sémantique qui a été proposé montre que la donnée est le lieu d'une certaine densité sémantique, d'un feuilletage sémantique, cristallisant des idées, des représentations, des symboliques et une axiologie. Ces dernières ont pour particularité de présenter une certaine aspérité : ce qui appartient à la nature et/ou est différent du monde humain, des limites pouvant rebuter ou faire peur, des qualités morales supposant l'affrontement de difficultés, la lutte et la nécessité de faire appel à une force ainsi qu'à des ressources personnelles. Les contes étudiés exploitent différentes facettes de l'ortie, entre caractéristiques botaniques, usages humains et représentations culturelles, pour les intégrer à une matière narrative au service de

significations d'ensemble. Aussi l'ortie en tant que donnée fictionnelle est-elle un fil possible pour circuler dans les quatre contes.

Notes

¹ Il est fait mention d'orties dans deux autres contes d'Andersen, « Le crapaud » et « Ce qui est arrivé au chardon ». Nous n'avons pas retenu ces contes car la mention est furtive, les orties ne constituent pas une composante de la fiction, assurant une fonction narrative et/ou sémantique dans l'économie du récit.

Dans « Le crapaud », les orties sont un élément de décor, elles sont le premier espace naturel que découvre le héros, un jeune crapaud, qui vient juste de quitter le puits où vit sa communauté car il a soif de découvertes et n'a de cesse d'aller toujours plus loin et plus haut.

Dans « Ce qui est arrivé au chardon », le héros est une plante anthropomorphisée, un énorme chardon, insatisfait, qui rêve de grandeur et aimerait passer de l'autre côté de la palissade, dans le jardin attenant à un manoir. L'ortie qui pousse tout à côté du chardon exprime le sentiment qu'elle aussi pourrait connaître un autre sort et être mieux traitée.

² « Demoiselle Maleen » (conte n°198, p. 462-468) et « La gardeuse d'oies à la fontaine » (conte n°179, p. 375-386) in les *Contes pour les enfants et la maison* édités et traduits par Natacha Rimasson-Fertin, tome 2, 2^{ème} édition, José Corti, Paris, 2009.

« Demoiselle Maleen » est paru en 1850 dans la 6^{ème} édition des *Contes de l'enfance et du foyer*. Natacha Rimasson-Fertin indique que le texte est emprunté au recueil de récits populaires du Schleswig-Holstein de Karl Müllenhof, conte originaire de Scandinavie. Les origines du conte ne lui semblent pas remonter plus loin qu'au XIX^{ème} siècle. « La gardeuse d'oies à la fontaine » est paru en 1843 dans la 5^{ème} édition des *Contes de l'enfance et du foyer*. Rimasson-Fertin signale que la source du texte est un conte merveilleux intitulé « La gardeuse d'oies » publié par Hermann Kletke dans l'*Almanach des contes populaires allemands* en 1840.

« Les cygnes sauvages » (p. 192-212) in les *Contes et histoires*, Hans Christian Andersen, introduction, traduction et annotation par Marc Auchet, collection La Pochothèque, Le Livre de Poche, 2005. Marc Auchet écrit que le conte a été publié pour la première fois dans le 1^{er} cahier du nouveau recueil des *Contes racontés pour des enfants* le 2 octobre 1838. « Il s'agit de la transcription d'un conte populaire. Il en existe de nombreuses versions au Danemark et en Allemagne. Andersen a découvert ce conte parmi ceux que Mathias Winther avait publiés dans ses *Contes populaires danois* (1823). » (Auchet, 2005 : 192). Auchet (2005 : 27) précise que « dans le corpus des 156 « contes et histoires » publiés du vivant d'Andersen, neuf seulement se situent dans la tradition des contes populaires *stricto sensu* », dont « Les cygnes sauvages ».

³ Claude Seignolle indique la même source pour son récit « La fileuse d'orties » (p. 142-148), *Contes, récits et légendes du Nord* in *Contes, récits et légendes des pays*

de France, tome 2, éditions Omnibus, 2014 pour l'édition lue, 1997 pour la première édition.

Dans cette version, le seigneur Burchard, réputé dur et cruel, ne consent lui aussi au mariage de Renelde que si elle confectionne deux chemises (chemise de noces de Renelde, chemise d'enterrement de Burchard). Dès que Renelde commence à filer la seconde chemise, Burchard va mal. Ses différentes tentatives pour empêcher Renelde de poursuivre son ouvrage - il ordonne, notamment, par deux fois à ses hommes d'armes de la noyer ; lui-même allongé sur une litière tire une balle à bout portant sur Renelde puis brise son rouet ; il fait arracher les orties à trois lieues à la ronde - sont annulées de manière magique. Burchard une fois mort, Renelde épouse son fiancé.

Cette version de Seignolle présente des différences par rapport à la version adaptée de Delye. Les intentions de Burchard à propos de Renelde sont plus explicites de même que la différence de statut social (un seigneur/une paysanne). Burchard propose sans succès à Renelde de devenir la chambrière de la comtesse, puis sa demoiselle d'honneur, et propose la troisième fois de répudier la comtesse et de l'épouser. Deux personnages, absents dans la version de Delye, jouent un certain rôle : la comtesse, épouse de Burchard, et le fiancé de Renelde, un jeune bûcheron. La confection des chemises en fils d'ortie n'est pas présentée comme étant difficile ou pénible. À la grande surprise de Renelde, écrit le texte, les orties rouies et teillées donnent un fil doux, léger et solide. À la fin du récit, Burchard, qui se sait condamné et ne parvient pas à mourir, fait venir Renelde à son chevet, lui ordonne de continuer à filer - Renelde ne filait plus depuis deux ans respectant la demande de la comtesse qui par le passé avait pourvu aux soins de sa mère malade - et regrettant ce qu'il a fait par orgueil lui demande pardon.

⁴ Les frères métamorphosés en cygnes sauvages connaissent déjà l'exil puisqu'il ne leur est permis de venir dans leur patrie qu'une seule fois dans l'année pour onze jours.

⁵ Une littérature de vulgarisation consacrée à l'ortie signale que dans l'histoire l'herbacée a été consommée lors de périodes de pénurie ou bien de restriction alimentaire. Yves Tissier (2014) donne quelques exemples : les famines durant la guerre de 100 ans au Moyen-Age, la grande famine de 1693-1694, ou plus près de nous les restrictions alimentaires durant la seconde guerre mondiale sous l'occupation allemande en France.

⁶ L'interdiction de parler durant le temps de la confection des 11 cottes constitue une autre représentation de la mort, l'épreuve de la mort symbolique, la communication parlée étant l'apanage de l'humanité (Belmont, 1999). L'enfermement de demoiselle Maleen dans une tour, obscure, coupée de tout bruit extérieur fait lui aussi figure d'une forme de mort symbolique.

Dans LCS, le mutisme est porteur d'une autre signification : l'ensauvagement. Elisa rejoint d'une certaine manière l'état de ses frères transformés en oiseaux.

⁷ Guylaine Gouffier (2010) explique que la fibre d'ortie est plus difficile à extraire que la fibre de lin par exemple. Elle ajoute que l'obtention de la fibre d'ortie est non-mécanisable. Ce fait plus que la qualité textile serait en cause dans le déclin et la disparition de l'industrie textile de l'ortie. Yves Tissier (2014) écrit que la fibre est de faible productivité.

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SEEKING THE FERN FLOWER ON IVAN KUPALA (ST. JOHN'S NIGHT)

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AND ARCHITECTURE (KNUCEA) (UKRAINE)

Introduction

Ivan Kupala, the ancient Slavic festival of Midsummer, leads, at its nocturnal culmination, to the quest for the fern flower. Special herbs are collected and blessed for healing, divination and magical purposes. Plants are used in the rites performed around fire and water: flowers for wreaths of female ritual attire, and also for the men, and floats of flowers with a candle set on streams to predict the future. A gradation emerges, leading from the profane realm through a zone of ritual enactment and transformation to an encounter with the 'transcendent', and, after passing the guardian forces of the otherworld, to a mystical vision of enrapturing beauty. This may lead the blessed ones to treasures, either material or immaterial. Finding the fern flower, as the rarest of the herbs collected at Ivan Kupala, can be understood as a polyvalent symbol, in which ancient mythology is encoded, disclosing a spiritual perception of nature, by which several aspects of the festival's rites are integrated. In this essay, the symbolisms of the herbs, of fire and water, and of the rites are described, on their mythological, cultural, spiritual, magical and religious backgrounds. Finally, the significance of the renewed public endorsement of the celebration of the festival of Ivan Kupala, and of its scholarly retrieval, in recent secular and post-secular cultural horizons is explored.

Cultural history and present significance

Ivan Kupala is a festival that has remained alive in historical continuity from pre-Christian times. Its integration into the Christian calendar has been controversial, but ultimately successful, in the Orthodox realm of Ukraine, Belarus and Russia, and in the Roman Catholic realm, as in Poland. It exists in a related form in the Baltic Lutheran country of Latvia. The name 'Kupal'ya' is attested in the mediaeval *Ipatiev Chronicle* for the year 1262, as designating the night before the festival of St. John the Baptist.¹ This is celebrated on the 24th June according to the Gregorian Calendar and on the 7th July according to the Julian Calendar, still in use in Slavic Orthodoxy. Both are exactly half a year from Christmas, with its celebration of the birth of Jesus Christ. In Roman times, the festival of the 'invincible sun' (*sol invictus*) was celebrated at the winter solstice. Both this and the summer solstice were very important in the ritual calendar and beliefs of Indo-European people. In many variations, they are celebrated through this cultural realm. The mythology at the foundation of these festivals – and expressed by their ritual enactments – is thus very ancient.

The *Gustyn Chronicle* of the 17th century – probably written near Chernihiv (Ukrainian) / Chernigov (Russian), north of Kiev – is acclaimed for its scholarly critical use of archaic sources. It gives detailed reports on Slavic Paganism and covers the history from the Kievan Rus' up to the end of the 16th century. The chronicler describes Kupalo as a deity and the rites to his honour as follows:

The fifth [deity] Kupalo was, as I believe, the God of Abundance, like Ceres for the Greeks. To him, the foolish people gave thanks during harvest-tide. The commemoration of this demon Kupalo is still being celebrated in some of our lands by the foolish, from the 23rd of June, the eve of the birth of St. John the Baptist, up to the harvest and [even] longer in the following way: in the evening, the plain folk of both sexes come together, and they wind wreaths from edible herbs or from roots. When they have wound the herbs around themselves, they light a fire. In another place, they erect a green branch and, holding hands, they circle [dance] around this fire, singing their songs in which Kupalo is mentioned. Then they jump over the aforesaid fire, dedicating themselves to this demon.² [my translation]

The chronicler then describes a deity, Koliada, venerated on the 24th of December, and thus affirms the relation between the two festivals. 'Koliada' songs are still sung during this time in Eastern Slavic countries.

The veneration of both Kupalo and Koliada is also described in Polish chronicles of the time.³

An older source on Ivan Kupala is the *Letter of the Abbot Pamfil of the Eleazarov Monastery to the Prince Dmitriy Vladimirovich of Rostov* of 1505. In it, the abbot describes the festivities, with attention to the erotic and magical aspects, as well as to the drama of the common celebrations:

When the great feast, the day of the Birth of the Forerunner [St. John the Baptist], dawns, and also before this great festive day, the magicians and witches go to the fields, go about in the swamps, in barren areas and in deciduous forests, seeking deadly grasses and potent herbs for the harm of man and beast; here, the women also dig up magic roots to bewitch their husbands; they do all of this under the influence of the devil on the day of the Forerunner, aided by satanic spells. When the festive day of the Birth of the Forerunner dawns, almost the whole town sets in motion; and in the villages, people amuse themselves with tambourines and flutes and playing of the harp and with all sorts of inappropriate games, clapping their hands and dancing; the women and the girls nod their heads and cry out irritatingly, singing all sorts of bad, devilish songs, turning their backs to and fro, jumping and stomping. This is a great temptation for men and boys, since they watch all these indecent doings of the women and girls; married women are dishonoured, and girls are likewise raped. What has been going on in this time in the towns and villages? The devil is revelling, pagan gods are worshipped. Satanic joy and merriment, here is also rejoicing and praising of Satan, and his devils shine among the people ... Like the true ancient pagan worshippers, they celebrate this devilish feast. In this way, Satan invites each year to [come to] him with this kind of pagan worship; and all sorts of licentiousness and ungodliness are offered to him as a sacrifice and an abhorrent spectacle, and the day is celebrated according to their ancient customs, and not as the day of the Birth of the Great Forerunner.⁴ [my translation]

Despite the polemic phraseology, the dynamism and spirit of the festivities are well captured here.

The two treatises describe different but complementary aspects of Ivan Kupala festivities: the collection of herbs and the communal celebrations. Both mention curative and magical aspects, besides the religious. The ecstatic and the erotic aspects are likewise noted; these persist to this day and are appreciated. They contribute strongly to the spirit and to present perceptions of the festival.

In the 19th century, Ivan Kupala was rediscovered by artists, scholars, composers and poets of Romanticism. Thus, Nikolay V. Gogol wrote short

stories about the festival.⁵ Modest Mussorgsky adopted the story, with its sinister magical elements, in his tone poem *Night on Bald Mountain*. At the beginning of the 20th century, Igor Stravinsky originally intended to situate his opera *The Rites of Spring* (*Le Sacre du Printemps*) at Ivan Kupala. The opera remains in living memory as a seminal event of Modernity. Stravinsky had developed his ideas in talks with the painter Nikolai Roerich.

The festival assumed iconic significance as a symbol of Slavic cultural identity. In this way, it is being adopted and promoted at present too, especially in Ukraine and Belarus, where it has remained most vitally preserved.

Ivan Kupala in collective identities and present cultural awareness

The festival is depicted on postage stamps of several Slavic countries. Shown below are examples from Ukraine and from Belarus (Figure 1.).



Figure 1. Postage stamp souvenir sheet showing Belarus folk holidays and celebrations (prepared by the Publishing Centre 'Marka' of the EUR 'Belpochna'), issued by the Ministry of Communications and Information of the Republic of Belarus on 1 March 2009. Designer: Anna Romanovskaya.

Source: <http://www.belpost.by/eng/stamps/stamp-catalogue/2009/04-2009-23-002/>
Retrieved:

https://commons.wikimedia.org/wiki/Category:Ivan_Kupala_Day_in_Belarus#/media/File:Obrjady_belorusov.jpg

On this sheet of postage stamps, four Slavic festivals are depicted (clockwise from top left):

1. The winter solstice festivities of *Koliada*, with light processions and rounds of singing,
2. The rites of spring, *Gukanne Vyasny*, with the ‘calling of larks’ in song,⁶
3. *Ivan Kupala*, with the search for the fern flower, and
4. The harvest festival of *Dozhynki*, celebrated at autumn equinox, with the last wreath of the harvest decorated and blessed, and the Divine Mother of Herbs⁷ depicted here (Figure 2.).



Figure 2. Postage stamp of Ukraine (1997): Searching for the Fern Flower [Иван Купала, цвeток папоротника. Марка України], 1997.

Source: <http://www.stamp.kiev.ua/ukr/stamp/?p=1&fi=1&rubrID=12>

Retrieved from:

https://commons.wikimedia.org/wiki/File:Stamp_of_Ukraine_s146.jpg

The stamp depicts the fern flower as fiery and as blazing energetically from the fern fronds, in a setting at night, between a woman and a man. Their bare feet show their engagement in a ritual. The young man’s clothing has the style of traditional peasant dress; the young woman’s clothing and her hair are free flowing, expressing the character of the Ivan Kupala festival. With this young couple, the erotic aspects of this quest are included in the depiction of the spiritual ‘epiphany’, in which the fern flower radiates its blessings and powers to them in many hues.

A reflection on Ivan Kupala in a modern Ukrainian women’s magazine, *Femina*, gives a good impression of the fusion of Slavic Pagan, Christian Orthodox, Esotericist, Aesthetic, Vitalist and magical views, that perceptibly distinguish it from the way it would probably be described in a non-Slavic

country of Europe. The religious and certainly the magic references would be less emphasised. In Germany, reference to pre-Christian religious heritage would mostly be considered taboo. The strong sense of religious-cultural continuity expressed here likewise marks a cultural difference. The magazine's author, Mila Rasskazkina, writes:

One of the most poetic holidays of the Ukrainian ritual calendar. The fires of Kupala inspired not only the great Nikolai Gogol, but also many other writers and poets. The Church celebrates the Nativity of John the Baptist on this day. Already in pre-Christian times, the Slavs celebrated the holiday of Kupala, that is, the Sun. By the fusion of Christian and Pagan traditions, the holiday of Ivan Kupala was formed.⁸

In this passage, the author's reference to both the Pagan Slavic and the Christian Orthodox origins reflects the 'double faith' that is characteristic of Eastern Slavic cultural consciousness – both imbued with a strong sense of a spiritually perceived nature.⁹ This turn towards the complex of Pagan and Christian Orthodox rituals and spirituality, understood and cherished as a whole – in spite of the tensions within it – was emphatically endorsed by composers too. Among them, Rimsky-Korsakov is foremost in the broad range of themes of the Slavic ritual calendar that comprises both sources, linked to the solstices and feasts of the agrarian cycle, to which he dedicated operas. Ivan Kupala is included in the opera *Mlada*.¹⁰ To him, the fusing of both sources – on the thematic level and in his style of composition – was an essential task of his vocation as an artist, as John Nelson, a musicologist at the University of Helsinki, explains:

Irrespective of his own pantheistic beliefs, Rimsky-Korsakov acknowledged that the life of the common people revolved around a merging of Christian and pagan beliefs and rituals. These are clearly brought out in many of his operas. Through his appreciation of the inner nature of the Russian people, Rimsky-Korsakov, through his operas, was able to bring the concept of religious identity closer to a Russian reality.¹¹

The revival of the national religious cultures both of Orthodoxy – as in the Hesychast revival and in the flourishing of compositions of Orthodox Church music – and of Slavic Pagan traditions was a broad endeavour in Russian 19th-century culture. Among these ethnographers, historians and theoreticians of culture was Sergey Soloviev, one of the most significant historians of the period, who wrote about popular resistance to Christianisation in folk traditions.¹² He was the father of the foremost Russian Orthodox religious philosopher, Vladimir Soloviev, who sought to revive a unified spiritual world view. This was a broad movement,

which encompassed leading poets, artists and scholars. They shared the view of art as a theurgic means of divination and their views flourished up to the Russian Revolution. They integrated Spiritist views of the late 19th century as well.¹³ Their perception of ‘nature’ was avowedly spiritual, as expressed by the religious philosopher Sergei Bulgakov in 1917 in his influential book *Свет невечерний* [*The Unfading Light*].¹⁴ Post-Soviet cultural discourse and scholarship draw strongly upon this tradition. This means that festivals like Ivan Kupala have an iconic value. Research on them is a matter of discourse, to define a cultural identity in definite contrast to Western Rationalism and Positivism. In this tradition, the festival and the spiritual beliefs expressed in it are retrieved. This influences public opinion, as may be observed in the following well-researched report on the festival in a modern Ukrainian magazine, *Femina*:

In mid-June, the midday sun reaches its highest point in the sky and remains in this position for some time, which is called the summer solstice. Then, having reached the full manifestation of its creative powers, it turns to the winter path, having lost its royal power over nature, its life-giving strength, and begins to [drop] lower and lower, slowly descending along the heavenly mountain; the days start to wane. All nature, as if anticipating its imminent old age, hastens to live a full life. The cuckoo has been cuckooing for the last month, the nightingale is singing the last wonderful song in its ringing voice, and soon, soon, other songbirds will subside. Kupala Night is the shortest – nobody should sleep this night. On the enchanted Kupala Night, trees move from place to place and talk to each other through the rustle of leaves; animals and even herbs talk among themselves, [and they] are filled with special, miraculous power this night. All earthly magic potions in this Night receive supernatural power: both evil and good.¹⁵

Besides the keen sense of nature, the strong tradition of magical beliefs and practices in East Slavic cultures is also evoked here, as an introduction to the description of the herbs and rites for these days. All of these prepare the reader to celebrate the festival in a sense of resonance between the outer and the inner worlds, the immanent and the supernatural realms, with all their mutual connections. By participating in this festival – and more so, by engaging actively in it – ‘energies’ in all of these dimensions and their mutual effects should be expected and attained. The author raises expectations of a heightened state of being, well beyond the frame of mere psycho-physical ‘wellness’ – but issues warnings and temptations about its powers too.

Rites connected to the *banya* (sauna)

The preparatory rites for the day before the Eve of St. John's Night are described in an article in the *Komsomolskaya Pravda*, from Vologda, where ancient customs survived for long. It gives the instructions for the day before Ivan Kupala that birch branches (*veniki*) for use in a steam bath (sauna) should be collected for the whole year.¹⁶ The idea of special powers of herbs at Midsummer for beneficial effects on health motivates the harvesting of bath brooms from birch and oak branches on this day. The *banya* is a place surrounded by magical beliefs. It is said to be inhabited by particularly dangerous spirits, the *banniks*. It was also (and remains so) a place of ritual purification. It should be visited in the daytime, and ideally in company, due to its spirit forces. It also used to be the preferred place for childbirth.¹⁷ A bath in the *banya* means ritual purification at the beginning of Ivan Kupala. It is a 'liminal place' and the threshold to the festive realm.

The ritual collection of herbs

The next task is the collection of herbs. This has to proceed in the spiritually powerful time, in a ritually appropriate way. W. F. Ryan, in his voluminous study *The Bathhouse at Midnight. An Historical Survey of Magic and Divination in Russia*, reports from Russian sources:

The healing properties of curative herbs were considered to be greatly enhanced if gathered on St. John's Eve or on the morning of St. John's Day, and here was a ritual and spell to be observed on this occasion. They were to be gathered between matins and mass on St. John's Day; the gatherer was to be alone, naked, seen by none, and not afraid of any of the manifestations he or she might see, before plucking the herbs the gatherer was to ask Mother Earth (*mat' syraia zemlia*) ... for her blessing. An alternative was to bow to the earth six times at home before setting out on the herb-gathering expedition, and again six times when reaching the place where the herbs were growing.¹⁸

In this prescription, "between matins and mass" is quite flexible, since 'matins' – the "Morning Prayer" (*Utrennaya*) – can be adjoined to the "Evening Prayer" on the day before, or immediately precede the "Divine Liturgy", the 'mass' that begins at some time in the morning.

The invocation of the Mother of the Moist Earth, also called Mat' Makosh' (Макошь), is a profoundly Pagan element. She is named as one of the official deities of the Pagan pantheon of Prince Vladimir of Kiev in

the 10th century.¹⁹ Her religious significance is described by the Russian historian of religion G. P. Fedotov in *The Russian Religious Mind. Vol. 1: The Kievan Christianity, from the 10th to the 13th Century* as follows:

In Mother Earth, who remains the core of Russian religion, converge the most secret and deep religious feelings of the folk. Beneath the veil of grass and flowers, the people venerate with awe the black moist depths, the source of all fertilising powers, the nourishing breast of nature, and their own last resting place. The very epithet of the earth in the folk songs, ‘Mother Earth, the Humid’, known also in Iranian mythology, alludes to the womb rather than to the face of the Earth.²⁰

Fedotov’s interpretation certainly also reflects the cultural awareness of Makosh as preserved in song. Her memory is especially conserved in motifs of embroidery in traditional garments and other textiles, together with numerous religious and mythological symbols. Thus, Makosh is depicted in a textile template for embroidery (Figure 3.). Makosh is in the centre, flanked by two human figures, seated on ‘heavenly horses’, who are interpreted as auxiliary twin deities: as Lada and Lado, who unfold the deities of fertility in female and male aspects, similarly to deities Freya and Freyr in Germanic mythology. Lada and Lado are mentioned together in many folk songs about fertility, be it in the fields or within marriage.²¹ They are often invoked in the refrains of such song. This divine pair is sometimes equated with the deity Kupalo, who is connected to Water, or the deity Iarilo, connected to Light²² – who are both important in the rites of Ivan Kupala, and are represented by water and fire in different forms. Likewise, the birds are of ritual significance, often appearing as messenger animals in folk tales and myths. The dots in between may represent flowers, as around the birds.

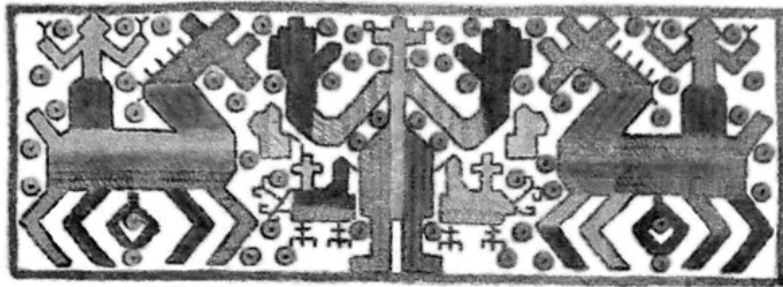


Figure 3. *Mother Mokosh surrounded by birds, a garden and heavenly horses.*²³ Design for embroidery from the Kaluga region. Preserved in the Museum of Ethnography in Belgorod. Photo: Лобачев Владимир (own work) [Vladimir Lobachev]. Source: <https://commons.wikimedia.org/w/index.php?curid=26879944>

The gathering of herbs with Makosh's invocation on Ivan Kupala thus also has religious aspects, besides the magical and curative. She was the protector of the fields and of livestock, and herbs were collected from her realm. In Christianised form, Mat' Mokosh reappeared as St. Paraskeva, exercising some of her roles. The memory of her has however remained alive in culture and rituals.

The collection of herbs is connected to the special time of the year and the day. It is conditioned by further prescriptions on the ritual preparation, the garment – by rigorous tradition, in ritual nudity – going alone or in small groups of people, and of the mode of harvesting, preferably without iron tools, by the requirement that the herbs should be moist with dew.²⁴

The time of the year is determined by the perception of special energies of nature at the summer solstice. These days were considered the period of the highest blooming of nature: the sun was at its zenith, the vegetation reached the peak of flowering and the ripening of fruits began – the day was considered the longest of the year and the night the shortest. In the minds of the Slavs, the magical powers of fire, water, earth and vegetation were so great during this period that they were credited with protective, purifying, producing and healing properties. Applying this power provided good luck for the whole year. There were widespread stories about the unusual phenomena that happened at that time related to the miraculous power of sacred plants. The requirement of dew on the herbs is connected to the attribute of life-giving moisture of Mother Makosh, whose 'hair' the herbs are sometimes regarded as in poetical imagination. Ritual nudity is meant to allow a person to merge with the natural environment by laying off the garments of culture insulating them from nature. It is a means of mystical union. Solitude serves the same purpose.

There are rules on who should gather herbs and for what purpose. The earliest reports on the festival, from mediaeval times onwards, mention the diviners, herbalists and magicians. On Midsummer's night, knowledgeable and experienced people, especially village healers and sorcerers, collected healing roots and herbs for the whole year. They are distinguished as follows. Special healers were involved in herbal medicine. They knew how to listen to the voice and rustle of herbs and leaves, and they were naturally endowed with rare abilities. They could hear the whispers of Mother Earth, who, according to the popular word, for the sake of us, her children, gave birth to all kinds of medicinal herbs and grains and breads to eat. Such healers were revered as wise and omniscient. As to their designation, the word *vedyat* has an ancient common Indo-European origin

and has common etymological roots with the word *Vedas* in Sanskrit and even the word ‘wisdom’ in English. Therefore, such people were called *vedma* (female witch) and *vedmak* (male witch). Their powers have always been regarded with some ambivalence. With Christianisation, they were marginalised as representatives of Pagan religion and even of demonic forces. Thus, these wise people began to be removed from society, by forcing them to settle separately from the villages, on the outskirts or in the forest. However, among the Eastern Slavs, they continued to enjoy special respect (although not without awe and fear of their special knowledge and skills). This is partly due to the accommodation that the Orthodox Church found with them, to some extent. If they followed their art and calling with blessings by the Church, and integrated into its liturgical frame, they were tolerated or even acknowledged. The Orthodox Church, like the Roman Catholic Church, composed special prayers for the blessings of herbs that were to be said by the collectors or used for special blessing rites of the Church.

With the advent of Enlightenment, these healers and soothsayers were denounced as representatives of ‘superstition’. Their practice was considered as dangerous to the sanity and ‘reasonableness’ of thought and severely ostracised. In central, western and northern Europe, widespread witch hunts, burnings and torture began during early Modernity and persisted into the 18th century. In the Orthodox realm, like in southern Europe, there were almost no persecutions and killings of witches. This certainly facilitated the survival of traditional diviners, spiritual healers and magicians in Orthodox countries – and of a rich tradition of Russian, Ukrainian and Belorussian spiritualism, spiritism, magic and esotericist culture, which survived through centuries of depreciation as being ‘unenlightened’ and repression in the 20th century to flourish anew in Post-Modernity.

In Soviet times, the attitudes of authorities to diviners, herbalists and soothsayers were ambivalent. They were regarded as representatives of opposition to Christianity – the main ideological opponent; in this way, they were appreciated as part of the folk heritage. They were oppressed, however, as agents of ‘religion’ and ‘superstition’. Scholarship on Slavic Paganism – prominently by Boris Rybakov, Vyacheslav Ivanov and Tzvetan Todorov – was promoted but only on strictly secular terms. Soviet authorities tried to redefine Ivan Kupala accordingly as a national youth festival, with limited success. The alterations made during this time have been discarded.

In post-Soviet times, Ivan Kupala and the healer-diviners attained new appreciation as representatives of autochthonous national spiritual culture. In this revival, research and theorists of the Romanticist Slavophiles, Russian religious philosophers and theoreticians of art, and of Symbolism, strove to combine ancient Paganism, Spiritism, Esotericism and Orthodox spirituality into a unified world view, such as by the art movements of the *Peredvizhniki* [*The Wanderers*], and then by the Symbolistic art movement, with its journal *Mup uckyccm6a* [*Mir Iskusstva; The World of Art*], which had inspired artists, composers and poets, also beyond Russia, like R. M. Rilke, raising interest in the spirituality and art of mediaeval and pre-Christian Russia.²⁵ The avant-garde-like search for a renewed and transcendently oriented art drew inspiration from here, and inspired composers, painters and poets to pick up themes from this realm, and to retrieve its forms of perception, experience, ritual, symbolism and cosmologies. This has inspired renewed research, such as by Alexandra B. Ippolitova in a study entitled “‘Prayers for gathering herbs and instruction on how to pick herbs’ in M. Velyakova’s handwritten collection of the 1890s” that is focused especially on Ivan Kupala. It was published by the Russian State University of Humanities (Moscow).²⁶ It is an example of the cultural linking up of these traditions in the post-Soviet era, with societal support in the quest for a spiritually based national culture. In this set-up, the Orthodox Church has a prominent position but no monopoly. In renewing the Russian cultural tradition of ‘double faith’, the Pagan practice and concepts are revived as well.

From an Orthodox perspective, the inclusion of Christian prayers in the collection and benediction of the herb is the decisive criterion of distinction from ungodly magical action. This is an ideal distinction, since Christian benedictions are also used in Russian magic, such as for protection from evil forces. It has, however, become a popular criterion of distinction of spiritual herbalists and diviners from magicians. This is affirmed, however, in this magical tradition by the view that trampling upon one’s cross – given at baptism, by Orthodox tradition, and worn as a protective pendant all life long – “was a requirement of becoming a magician and a sign of demonic magic ... The belief in the power of the cross to disconcert demons ... is remarked very early in Russian literature.”²⁷

In an analysis of a Russian collection of prayers and spells for the collection of herbs from the late 19th century, Alexandra B. Ippolitova of the Russian State University of Humanities (RGGU) in Moscow presents the following prayer from a folk ‘herbalist’ of the 17th century as being characteristic:

Prayer, how to approach the grass:

“In the name of the Father and the Son and the Holy Spirit. Amen.

The Lord Himself, Jesus Christ Himself created the heavens and the earth,
He created the sea, water, and all things.

You, herb, root from the earth, colour from the sky/heaven, bless me, herb
to pluck!

Command me to you, God’s servant

I pluck you, blessed.

For what I am plucking you, for that you may be good.

And you are the herb from the earthly pillar, from the life-giving cross,
herb from God, herb from the Earth.

Earth, you are Mother, bless your fruit, taken and standing under the
righteous sun for my need.

For what it is good for me, for that I pluck it.”²⁸

Remarkable in this (non-canonical) prayer is the combination of Christian and Pagan invocations. With the trinitarian opening formula of “In the name of the Father, the Son and the Holy Spirit”, any Orthodox prayer begins. Then Christ is invoked as creator. The herb to be plucked is thus addressed as being of God’s creation. The formula of “root from the earth, colour from the sky/heaven”, however, alludes to the Pagan world view, which is explicit subsequently: after the Pagan Slavic duality of ‘heavenly Father/Sky God’ and ‘Earth Mother’, the herb is addressed as originating from both realms and combining them. It is thus addressed as having both Christian and Pagan divine properties.

The herb is then invoked to command its plucking in the service of God for good purpose. The herb, it may be noted, is not treated in any utilitarian rationalistic approach as a ‘commodity’ of sorts, not even as a ‘spiritual commodity’, but as a divine subject. It is addressed as springing from the “earthly pillar”, the “life-giving cross” of Jesus Christ. This alludes to the resurrection of Christ – to which the herb’s death by harvesting is implicitly connected – and to the symbol of an ‘axis mundi’ as the symbolic centre, linking the profane and the spiritual, mediating between heaven and earth. By such consecration, the herbs are perceived to attain cosmological connections that reinforce their curative powers of

many dimensions. The formula of “herb from God, herb from the Earth” addresses God in the Christian Orthodox and (Mother) Earth in a Pagan understanding. The invocation of “Earth, you are Mother, bless your fruit” is an openly Pagan prayer. The righteousness and justification of plucking this herb is finally affirmed by the good purposes to which it may serve. This prayer shows that the main dividing line is not that between Christian Orthodoxy and Slavic Paganism, but between what is spiritually and ethically good and that which is evil and selfish. The latter is associated with magic and sorcery.

In another prayer from the 17th or 18th century, No. 8 in M. Velyakova's collection, the Pagan Mother-Moist-Earth is invoked by this name:

[Prayer] no. 8. *General blessing of Herbs*:

“God bless!

And you, dear Mother-Moist-Earth, bless this herb to pick.

And you, the Herb, have become ripe, with everything in your power, for everything for what you are useful.

For this reason, I, servant of God, am called for the benefit of all Orthodox Christians, and I take you. Amen.

Read 3 times” (fol. 136v.)²⁹ [my translation]

These prayers and spells show that the curative and spiritual powers of the herbs thus collected were not considered to be entirely intrinsic properties, as with medical plants, nor due solely to the special powers of the summer solstice in nature, and neither were they conceived as being purely conveyed by ritual blessings to imbue the plants with such power; rather, a ‘relational ontology’ is discernible here. In it, all of these factors contribute to the powers of the herbs thus collected, although only in conjunction, not in isolation. Explicative concepts such as ‘construction’ or ‘imagination’ appear as strangely odd in this perspective, likewise an opposition of ‘objective’ and ‘subjective’ (‘attributed’) properties. It may be assumed that the delicate ‘relational ontology’ was shared by the collectors and by those to whom the herbs collected and blessed in this way were administered.

In addition to these prayers and benedictions spoken by the collectors, the herbs thus collected would be blessed by priests too. A. Ippolitova observed that between the 16th and 19th centuries, the blessings tended to

become more elaborate, including several prayers from the complex of Orthodox “Morning Prayer”. Magic formulae, spells and procedures are also included in some cases.³⁰

About the herbs

Various compilations about the number and species of herbs exist, as well as about their use. Some of those commonly mentioned are shown in the following:

Take herbs to the Bath [*banya* / sauna], at the [festival of] the Birth of St. John the Baptist in the month of June on the 24th day at supper and at night and at morning dawn and all day with mother grass and King Plakun [*Lythrum salicaria*] with prayer. And decorate the herbs with gold and silver and pierce through the gold and silver, or outline with gold and silver. And then which to take, she herself clearly writes in her inventory, and not everyone is to take all the above. Just pick the root of the herb in the sun. [...] And have a very clean walk. And take the luminous herbs, which you cannot see during the day, but at night, like a candle burns.³¹

Here, the first two special herbs are mentioned. The ‘mother herb’ is wild marjoram (*Origanum vulgare*). The ‘King Plakun’ is the purple loosestrife. Reference to an inventory is made. Then, the ritual prescription of cleanliness and purity, and of treatments of the herbs as precious by framing them in gold and silver, are advised. This leads to the quest for the ‘mystical flower’ that is not visible to ordinary senses, as in a gradation of the rite of herb collection on Ivan Kupala (Figure 4.).

The ‘King Plakun’ herb is treated with respect in East Slavic countries. Its name comes from the Russian *plakat* [to cry or to weep]. Plucked in the early morning on Ivan Kupala, it is believed to have great powers: to ward off unclean spirits, make them obedient, destroy the spell of sorcerers and witches, and provide salvation from devilish temptation and ailments. A cross made of the herb is said to drive out demons. Plakun is said to show treasures and make the clouds rain. The plant, with its characteristic tall fronds of purple flowers, grows in dense stands in moist lands. It is extremely fertile and the apotropaic properties of this plant were venerated. After its roots were harvested, the following words should be spoken for it in a church, in front of an icon:

Tear-weed, tear-weed,
You have wept much and long but gained little.
May your tears not drown the open field,

Nor your cries sound over the deep blue sea.
 Frighten off the demons and the witches!
 If they do not submit to you, then drown them in your tears. [...]
 May my words be firm and strong for hundreds of years!³²



Figure 4. *Herb collection on Ivan Kupala in Serebryany bor 2017. Photo: Vladimir Lobachev. 24 June 2017.*

Source:

https://upload.wikimedia.org/wikipedia/commons/0/07/Ivan_Kupala_Day_in_Serebryany_bor_2017_60.jpg

A plant that receives much attention and has captured the imagination due to its unusual combination of two complementary colours is ‘Ivan-da-Mar’ya’ (*Melampyrum nemorosum*; the blue cow-wheat). The unusual appearance comes from the blue upper bracts surrounding the yellow flowers. This ‘duality of opposites’ was applied symbolically to polarities connected to the festival of Ivan Kupala. One of its features, discussed already in older chronicles, is the erotic licentiousness of this night. This touched upon the issue of incest, which was a sensitive subject in the close-knit communities of small villages. The theme of forbidden love between brother and sister is evoked here. Referring to the work of Vladimir Toporov and Vyacheslav Ivanov, who developed a semiotic approach to the study of culture from 1970 onwards,³³ V. Kolosova explains that views on incest were ambivalent, with special fertility also being attributed to such a union:

The motive [of incest] ... was analyzed in Vyach. Vs. Ivanov and V. N. Toporov’s book “Research in the area of Slavonic antiquities”^[34]. In their opinion, the interdiction of marriage and its violation should be compared to stories about removal of interdictions on sexual relations between all men and women during midsummer night (Ivanov, Toporov 1974: 226).³⁵

This duality also symbolises the reconciliation between spouses and the protection of marital harmony, as V. Kolosova reports from ethnographic literature about its application by rural diviners.³⁶ Toporov and Ivanov had emphasised the ambivalence in this issue and symbolism. From a semiotic perspective, this relates the plant's symbolism to its seemingly unconnected uses. Among these is its use to ward off thieves and evil spirits, as V. Kolosova reports:

Duality being associated with this plant, it also served as an original amulet. Having picked it up on St. John's Day before sunrise, some people put it in the corners of a log hut so that a thief could not approach the hut: "brother will talk to sister; the thief will think that the master of the house is talking to the mistress" [...] This flower was used as a magic plant as well. [...] it was one of the flowers picked up to be used against evil spirits.³⁷

As may be expected, this herb was to be used in the *banya* as well:

This plant was thought to be able to provide good health: "Among Russians, if somebody wants to be healthy during the whole year, he/she, having bathed at St. John's night, rubs all his/her body with a flower of Ivan-da-Marja" (Sobotka 1879³⁸: 318). This flower was a component of a bath besom as well: "In some places of the Novgorod province, near Old and New Ladoga and Tikhvin, on St. John's Day one heats a bath and, having stuck the herb Ivan-da-Marja into brooms, takes a steam bath on this holiday with the purpose to receive health [...] In Moscow there also existed a custom of steaming by besoms with Ivan-da-Marja ..." (Zabylin 1996³⁹: 83). In St. Petersburg Ivan-da-Marja, along with buttercup, nettle, fern, camomile, mint and wormwood, was a part of a midsummer birch besom on the eve of St. Agrafena's Day [the day before St. John the Baptist's Day of Birth] (Tereshchenko 1848⁴⁰: 72).⁴¹

Considering the ambivalent character of the *banya* as a place of invigoration but also of spirits, it appears that Ivan-da-Mar'ya's duality, combining contrasts, is attractive and perceived as apotropaic and life sustaining. This indicates that Ivan Kupala is not to be understood as a festival of mere harmony, but rather as the reconciliation of polarities and opposites.

Among the herbs to be collected, several are used for divination. Among these, the use of the blue anemone, called 'Dream herb' in Ukrainian or 'Dream shooter' in Russian, is especially poetic: it should be laid under a pillow to show the future in matters of the heart in dreams. Other herbs are used for divination as well, such as for showing the way to treasures. The

common stinging nettle (*Urtica dioica*) is collected to be hung up dry in living rooms for purification and to ward off evil goblins. Camomile (*Matricaria chamomile*) is collected for medical purposes. A set of 12 herbs should customarily be collected. Among these, there should be fern, thistle or plantain.

The roadside plantain (*Plantago major*) also has a role in divination. Thus, Vyacheslav Shadrin, engaged in the revival of Ivan Kupala celebrations, explains:

For unmarried girls to gather twelve herbs on this day (thistle and fern in particular) and place them under their pillows at night and whisper “My-one-true-betrothed, come to my garden to stroll!” They say it really works! If you can’t find thistle, you can use plantain (*triputnik*) for this same purpose, laying it under your head with the words “Plantain, travel companion, you live by the road, you see young and old, tell me of my betrothed!”⁴² [botanical translation corrected]

These rites of divination show that the night of Ivan Kupala is regarded as fateful and as suitable due to a special connection with the otherworld and transcendent realms that were perceived to exist then. The encounter with the otherworld is regarded as dangerous. The magical texts on collecting special herbs for such purposes list manifold observances and apotropaic rites, to protect against malignant forces or guardian spirits encountered, to avoid magic ‘backfiring’ and to safeguard the purpose.

On dressing with garlands of flowers and herbs

The celebrants of the communal festivities of Ivan Kupala are required to dress with garlands of flowers and wreaths upon their heads. This is mandatory for girls in all the festivals from spring to autumn. The boys wear flowers or oak leaves on their heads too. The intent is to create bonds between man and nature. By dressing in traditional attire, in garments often adorned with symbolic ornaments of Slavic tradition, like the sun wheel, the link between culture and nature in the festival is emphasised, often with spiritual overtones. It creates a sense of bonding in many ways – a movement of ‘re-territorialisation’, to phrase it in a post-structural term (Figure 5.).



Figure 5. *Binding a Kupala wreath with traditional fabric (Belarus). Photo: Axlillyrose, 26 June 2019.*

Source: https://commons.wikimedia.org/wiki/File:Kupalskaye_Kola._Weaving_a_wreath.jpg

The proper dressing in ritual garments is a very important aspect of any spiritual ritual. It is an enactment, involving the body, the senses, and the perception of the self and others, that brings about an essential transformation. It connects the person participating in the ritual to others, in forming a ritual community, that changes the sense of self and of community, binding and bonding with the others and with the ritual reality enacted, in a way that can be deeply touching and transformative. It is by no means mere decoration but has ontological qualities that go beyond the semiotic aspects.

For a modern Western world view and concept of a person as a self-contained individual, this element requires special attention. The semiotic aspects of the ritual garments and wreaths of plants of Ivan Kupala are highly significant in symbolising specific aspects of this transformation and of the cosmos in which a participant partakes through the ritual of the feast in this community.

Through round dances (Figure 6), the communal nature of Ivan Kupala is enacted, in a sense of community beyond the usual social distinctions.⁴³ In his (influential) theory of rituals, Victor Turner has elucidated these elements. The aspect of liminality is enacted and experienced in the uplifting of the usual boundaries and regulations, creating a sense of freedom and ecstasy in communion.⁴⁴

The round dance, or *Khorovod*, performed at Ivan Kupala is an ancient ritual dance:

The Khorovod is usually a women's dance that contains lyrics and movements derived from ancient Slavonic times. This dance has walking and circle figures which embellish folk rituals such as the greeting of spring, the death of winter, the celebration of the winter solstice, the harvest, or the weather... The circle dance celebrates the cycle of life and symbolises pagan sun-worship. In pagan Russia, the first Khorovods were calendar songs, frequently sung by dancers while expressing the words with various actions [...] Calendar songs are one of the oldest groups of Russian folklore. The most ancient of them are invocation songs.⁴⁵



Figure 6. *Round dance with wreath, Ivana Kupala eve (Belarus). Photo: Axlbiilyrose, 26 June 2019.*

Source:

https://upload.wikimedia.org/wikipedia/commons/8/8a/Kupalskaye_Kola._Five-meter_spit_around_the_fire.jpg

On fire in Ivan Kupala: myth and ritual

The two dominant elements of Ivan Kupala – apart from the herbs – are fire and water. They too may be regarded as opposites and the herbs are connected to them in rituals. The fire element is celebrated in various ways: it is represented centrally, by the date of the festival at the summer solstice, by the big bonfire at the centre of the celebration (Figure 7.), in the symbolism of some plants, in particular of the fiery fern blossom of this night, in the time of collection, in fire wheels and round dances, in the rite of jumping over the fire, and also in the connection between the fire and the water, which leads to the placing of the festive wreaths with candles on the water for divination at the end of the ceremony.

The most important aspect is the big bonfire, which is lit on this day. The fire represents the sun.⁴⁶ The symbolism of these rites can be derived from solar myths. This explains many features and the coherence of ritual

elements in Ivan Kupala. The celebrants dance around the fire; this represents the sun's movement. The same is also enacted by another ritual of Ivan Kupala, where a wheel, set on fire, is rolled down a hill. The sacrificial aspect of the festival is represented by a straw puppet that is thrown into the fire. It symbolises the waning of the powers of the vegetation deity, Yarilo, who represents the solar aspects of Ivan Kupala.⁴⁷ This custom is widespread in Europe. Blessed herbs of the past year that have not been used are ritually burnt in the fire.⁴⁸ The ashes are said to have magical properties.



Figure 7. *The ritual round dance, or Khorovod, around the fire at Ivan Kupala.* Photo: Праздник Ивана Купалы в родовом поселении «Серебряный бор», Белгородская область [Ivan Kupala Day in Serebriany Bor in Belgorod Oblast]. 24 June 2017. Лобачев Владимир [Vladimir Lobavich]

Source:

https://commons.wikimedia.org/wiki/Category:Ivan_Kupala_Day_in_Belgorod_Oblast_2017?uselang=fr#/media/File:Ivan_Kupala_Day_in_Serebriany_bor_2017_65.jpg

During the round dances, special songs for the feast are sung. In the long hours of the evening, many folk songs are sung, reinforcing the sense of community and of harmony. (Other than in Germany and other countries to the west, people tend to know a vast store of traditional songs off by heart, adding to them newer songs of modern times; a sense of unbroken tradition conveys itself.) When the fire dies down, the time for a special rite has come, which is considered to be invigorating, blessed and divinatory. Couples jump over the fire, holding their hands fast. Jumping successfully, without being touched by the flames, spells good luck (Figure 8).⁴⁹

Michael Witzel, the renowned Indologist and specialist on the Veda and early non-Vedic traditions, is the author of the magisterial study *The Origin of the World's Mythologies*. He traces their genesis and familial

relations, by a combination of the comparative study of myths with other methods, of linguistics, archaeology, genetics, etc. Thus, primary myths and their subsequent developments are traced. These go far back in time. Witzel identifies a set of core myths that appear as related motifs in different regions and cultures of the world. This approach provides a key to understanding the symbolism of fire and water and their rituals in Ivan Kupala, connected to the solstices. Its symbolism occurs in different 'families' of Laurasian mythology – that is, the myths of peoples who have emigrated from Africa, more than 20,000 years ago, with these motifs also present in Amerindian myth.⁵⁰ Witzel discusses the complex of solar myths as a centrepiece. His research on the antiquity of the rites and myths of this complex received decisive inputs by his observation of common features in Japanese and Vedic Indian solar myths and fire rituals that predate Indo-Japanese cultural contacts through Buddhism.⁵¹ Witzel thus shows these myths to be part of a common mythological heritage. Similar myths in Chinese and Amerindian cultures show them to be very old.⁵² It can thus safely be assumed that the rites of the summer solstice, including those of Ivan Kupala of East Slavic cultures, are extraordinarily ancient.



Figure 8. *Ivan Ivanovich Sokolov, Kupala Night, 1856.*

Source: https://upload.wikimedia.org/wikipedia/commons/5/52/Соколов_Ночь-на-Ивана-Купалу_1856.jpg

About the solar myths related to the solstices, and also to the sunrise, noon and sunset, Witzel explains:

The first appearance of sunlight, Dawn or the Sun is dealt with in a large number of instances of a myth found in Europe, India, East Asia and the Americas, in short, in what I call Laurasian mythology. [...] The myth

involves the retreat of the Sun into a cave or its capture in a house, basket, and the like. The sun is released by a trickster deity. A typical example is the release in the earliest Indian texts (Veda) of Ushas, the Dawn – usually equated with reddish cows – by the heroic god Indra. Another one is the parallel release of the Sun goddess Amaterasu from her Iwato cave in the earliest Japanese mythological histories, the *Kojiki* and *Nihon Shoki*. [...] In some of these myths, the connection with Winter solstice is immediately apparent, especially in Vedic India and old Japan.⁵³

The winter and summer solstices are connected both mythologically and ritually, and also by certain magical practices advised for Ivan Kupala. What then follows in Vedic, Chinese, Japanese and Maya (Amerindian) myths are tales of love of the solar deity, or her descendants (Amaterasu, Ushas's offspring, or the "Weaver woman" in the ancient Chinese myth of the *Weaver woman and the Cowherd* and its Maya parallel of the *Weaver Woman and the Hunter*), that are displeasing due to their promiscuous, incestuous or overly erotic character. This leads to the separation of the lovers – often banned to the Milky Way – with permission for them to reunite in love once per year, usually at the summer solstice or soon thereafter.⁵⁴ In this constellation, we have a link between the motifs of the solar symbolism in Ivan Kupala and of the sexual liberties that are ritually enacted on this night, in several ways. The incest motif is reflected in the symbolism of the bicoloured Ivan-da-Mar'ya flower, which is so important among the herbs collected at this festival.

Witzel identifies a second complex of myths associated with the summer solstice: the slaying of the dragon and the acquisition of the "mead of immortality", the Vedic Soma, which is the equivalent of the Greek ambrosia. This complex is represented in the Vedic Soma ritual and its pressing at noon, corresponding to the summer solstice. The mythical dragon is killed by the god Indra, who is strengthened by Soma: "...the mythology of the acquisition and first offering of Soma as well as that of killing the dragon is clearly connected in the Veda with the Summer Solstice."⁵⁵

A third motif related to the summer solstice is the Vedic myth of the temporary marriage of the sun's descendant, Purūravas, to the demigoddess Urvaśī. This union, brought about by passion on both sides, fails due to its irreconcilable foundations. The nymph returns into her realm, to the Gandharva demigods. However, annually, the fire of the Gandharvas is brought to earth, which is enacted in a ritual on Midsummer. The story of Purūravas and Urvaśī is told in *Rig Veda* 10.95. In another version of the myth, they meet again after a year. Urvaśī presents their son to Purūravas,

who is to become a hero. Purūravas is promised that he will join the realm of the Gandharvas and become deified.⁵⁶

These motifs correspond to the quest for the fern flower, which is regarded to be of an otherworldly, fiery nature. This reflects the motif of heavenly fire, brought to earth on this day under very specific ritual circumstances. The fern flower is believed to be surrounded by dangerous guardian spirits. To see or even to pluck it is believed to provide good luck.

Seeking the fern flower

On the night of Ivan Kupala, a fern is believed to flower in a mystical way that is perceptible only to a few people. Finding this flower in the forest is regarded as an ambiguous experience, since it is believed to be jealously guarded by spirit forces.⁵⁷ Some folk tales tell how a person may even be guided to find the fern flower by the mischievous spirits, only to be unable to keep it due to their inability to deal with the spirits, and thus forsaking the luck its possession might have brought.⁵⁸ Descriptions of finding the fern flower lead to the boundaries of usual perception. In a study of current spiritual ideas and practices in Russia connected to nature, divination and healing, based on consultations with Russian scholars and spiritual practitioners, Kenneth Johnson reports the advice:

The fire-flower of the fern must be gathered at midnight. Go to the forest and find the right fern. The fire-flower will climb up the length of the plant like a living being, then explode into a bloom of fire exactly at midnight, causing such a luminous glow that no one can look directly upon it. To gain this flower, trace a magic circle around it. Stay inside and try not to gaze at the guardian demons who will take monstrous shapes in an attempt to frighten you off. [...] If you do, you will be lost.⁵⁹

The elaborate ritual preparations preceding the search for the fern flower, the timing and the magical prescription for safeguarding it indicate that outer and inner preparation is required to attain the transformation of faculties of perception necessary for this vision – and to do so safely (Figure 9.). It is once again a relational ontology presupposed here that is expressed in many stories of different character. Although the possession of the herb is said to provide faculties of clairvoyance that guide the bearer to hidden treasures and provide special interpersonal powers,⁶⁰ the many stories of loss or failure to keep these talents indicate that they are not objective in themselves. The elusive nature of this phenomenon is well acknowledged:

According to stories, at about midnight, from the wide leaves of the fern will appear buds which grow higher and higher, then quickly quiver, turn over and jump. At exactly midnight the bud matures with a crash and you will see the bright fire-flower. It is so bright you cannot look on it. An invisible hand plucks it away, doing what a human hand has yet to.⁶¹

The appearance of the fern flower is also described in vivid images. Thus, M. Rasskazkina writes:

A fern that opens up with a strong fiery red (from a distance crimson) slightly shimmering color only for a few moments on the Kupala Night gives the person who found it the ability to guess the future.⁶²



Figure 9. *Finding the Fern Flower in the forest in Poland. Painting: Antoni Piotrowski – Bajka o kwiecie paproci. 1910.*

Source:

https://commons.wikimedia.org/wiki/Category:Fern_flower#/media/File:Antoni_Piotrowski_-_Bajka_o_kwiecie_paproci.jpg

About explanatory models, currently used by Russian researchers in this field, such as Igor Kungurtsev, Olga Luchakova, and Vladimir Antonov, Kenneth Johnson reports the following:

Some sorcerers believe that the tiny dreopteris fern ... which Vladimir described as a “plant of great power” is in fact ... capable of producing a protective energy so powerful that it sometimes becomes visible to those who know to see it. Just as water naturally changes its polarity on certain powerful holy days, so the dreopteris grows in power towards Midsummer, so that on Kupalo’s Night the energetic cocoon of the plant is intensely

vivid and glowing. A sorcerer ... may recognize the mythic fire-fern on a dreopteris of sufficient power and energy.⁶³

In this explanation, a certain 'naturalisation of the transcendent' may be recognised, by which the mythical is related to contemporary discourses of phyto-energy. Hereby, notions of the fern flower and its perception are retrieved from their cultural placement in pre-modern rural peripheries or in a pre-Christian past, to be reintroduced into postmodern spiritual discourse about phenomena in nature and about modes of accessing them.

The water rites

The second day of the festival, the 7th of July, is dedicated to the element of water. The name 'Kupala' comes from the Russian word *kupati* [to bathe]. The veneration of healing water is essential to the rites (Figure 10). As a fertility deity, Kupala is connected to the healing power of herbs.⁶⁴ Regarding the water rituals for this day, the *Komsomolskaya Pravda* of Vologda states:

The 7th of July – We wash ourselves in dew: And now comes the last of these mystical days – the Day of Ivan Kupala. It is filled with rites connected with water. But followers should be careful. It is well known that the water-spirits cannot tolerate humans crawling into their kingdom and will drown the uncareful.⁶⁵

To a Western European reader, such reference to water spirits may appear as strange – and surprising for a contemporary mainstream journal. The concept of multiple modernities in different cultures may also remind one of epistemic plurality in Post-Modernity.

In its 'subtle form', water is included by the ritual prescription of collecting dew:

On Ivan's Day [7th July] it is good for women to gather dew early in the morning. To do this, they take a clean sheet and a 'burak' (a bag with a wooden bottom and lid) to the field. The sheet is laid out on the wet grass and the dew is then squeezed into the burak. With this dew, one washes one's face and hands. For centuries, this helped many of our (Russian) ancestors to 'chase away any illness.'⁶⁶

The special powers attributed to dew on this night are connected to the solstice and the solar circle.



Figure 10. *The ritual swim at the conclusion of the festival. Photo: Праздник Ивана Купалы в родовом поселении «Серебряный бор», Белгородская область. Festival of Ivan Kupala in serebryani Bor, Belgorod oblast, 2 July 2016. Лобачев Владимир [Vladimir Lobavich].*

Source:

https://commons.wikimedia.org/wiki/File:Ivan_Kupala_Day_in_Serebryany_bor_2016_09.jpg

Swimming is an important part of Ivan Kupala (Figure 10.). The spiritual significance attached to this rite can be recognised by the fact that shortly after the winter solstice, at the feast of the Baptism of Christ, the Orthodox Church blesses the waters. Despite the deep frost in most East Slavic countries, the ice is cut open so that participants can take a bath to be blessed and renewed in the frigid waters.

Ritual swimming is a transformative rite that leads beyond the boundaries of an established order and is enacted as a rite of renewal and invigoration of the person and the community; this is known from other civilisations too. Wolfgang Bauer, in his study on the search for happiness, on utopias and paradises in the cultural history of China from its beginnings, identified this as a motif. He explains that it came to be re-enacted publicly by Mao Tse Tung, as a mythic event in a secular guise in Modernity, by swimming across the Yang-Tse River in 1956 and 1965.⁶⁷ The language of myth and ritual discloses a far older and deeply spiritual meaning, retrieved in a political context.

On Ivan Kupala, the ritual aspect of the swim is emphasised when wreaths are worn in the water. They are kept on until the end of the ceremonies. Then they are put into the water, preferably into flowing water and often with a candle on them. The course of these floats is observed and divination is made, especially in matters of love (Figure 11.). If the floats

flow freely and do not sink, it is regarded as a good omen that life will go well in the year ahead.⁶⁸ This 'letting go' of the wreaths, as the mandatory head ornament for the girls, also symbolises the conclusion of the sacred time of the festival and the return to normal life.⁶⁹

Conclusion

In the rites of Ivan Kupala, a concentric structure may be found: embedded in the yearly cycle of the solstices, the festival represents the fullness of life at its apex and turning point. This polarity has cosmological meanings emerging from different layers of myth, from the most ancient Laurasian, up to the specifically Slavic Pagan, and into the liturgical year and rites of the Orthodox Church, for the Eastern Slavic realm and to some degree the Roman Catholic Church in the Western Slavic realm. In the rites of Ivan Kupala, with their manifold symbolism, these layers are preserved and combined in dynamic union. Herein, the herbs have special significance. They are connected to the symbolism of fire – the solar aspect with its myths – and of water – with its manifold rich symbolism of renewal – both of which are constitutive for the rites and symbolism of this festival. They are included in most of the rituals, from the beginning on 6th July, up to the end on the 7th, as described here and explained for some herbs. The different mythological and religious horizons are thus integrated.

The herbs are also present in two forms: as natural herbs, albeit with both natural and supernatural (spiritual and magical) powers, and in the form of the fern flower in a decidedly supernatural or spiritual form, here too with magical aspects. A gradation is observable; however, there is no clear opposition. This marks the character of this festival as 'opening the gates' to a supernatural realm, accessed and effective in many ways. The herbs of this festival, with the fern flower at its apex, symbolise a cosmology in which the natural and the supernatural permeate each other.

The renewed popularity of this festival and its public endorsement is most interesting. Its renaissance, after centuries of repression and contempt towards superstition, and after forceful attempts at secularisation and 'folklorisation' in Soviet times, indicates a decidedly post-secular retrieval, expressing altered perceptions of reality and cosmology (Figure 11.). This is also apparent in the religiously 'polyvalent' interpretations and explanations of the festival in popular cultural media. Deliberately re-connecting to pre-Soviet research and philosophy of culture, spirituality and religion, a self-conscious distinction from the uniformity and limitations of the Rationalism and technocratic world views of Modernity,

in both their Soviet and Western versions, is sought. This festival thus becomes an eminent means of defining collective identities, distinct from both models. The cultural distance between them is self-consciously expressed in publications and websites. In this endeavour, ideas and research of the cultural avant-garde of the 19th century and especially of the early 20th century are picked up again. The festival is reappraised – remarkably, in publications from the major urban centres of culture and from their perspective – in order to define a renewed cultural identity, reconnected to the cultural and spiritual roots and heritage. In this reappraisal, the different religious heritages – the Slavic Pagan, the Orthodox (and Catholic) Christian, the Esoteric, including even their elements of magic – are deliberately integrated, regardless of their mutual tensions. Expressive of a new ‘feeling of life’ – in the environment of somewhat culturally conservative societies – the free spirit of the festival is celebrated with relish. The herbs of Ivan Kupala may be read as symbols of a complex ‘nature’, written through centuries of Slavic culture. Their aesthetic images are to be understood intuitively.



Figure 11. *Water divination with floats of herbs and lights. Ivan Kupala Day in Serebryany bor 2017.*

Photo: Vladimir Lobachev.

Source:

https://commons.wikimedia.org/wiki/File:Ivan_Kupala_Day_in_Serebryany_bor_2017_50.jpg

Notes

¹ Mansikka, Mansikka, Viljo Johannes, *Die Religion der Ostslaven / 1: Quellen*, Helsinki, Suomalainen Tiedeakatemia, 1922 (edited for the Folklore Fellows by Johannes Bolte et al., vol. X, no. 43), p. 98.

² Idem, p. 117.

³ Idem, p. 121.

⁴ Idem, p. 225.

⁵ Gogol, Nikolai Vassilyevich., “St. John's Eve”, *Evenings on a Farm Near Dikanka* [collection of short stories], 1830. Гоголь Н.В. Вечер накануне Ивана Купала / Н. В. Гоголь. Собрание сочинений в девяти томах. Т. 1. Москва: Русская книга, 1994.

⁶ Zemtsovsky, Izaly, “Russia”, *The Concise Garland Encyclopedia of World Music*, vol. 1, New York, Routledge, 2008, p. 589.

⁷ “Day of the Divine Mother of Herbs”, *Lamus Dworski* [blog], 13 August 2016, <https://lamusdworski.wordpress.com/2016/08/13/divine-mother-of-herbs/>.

⁸ Рассказкина, Мила, “Праздник Ивана Купалы” [Rasskazkina, Mila, “Ivan Kupala – a holiday of water and fire”], *Femina*, June 2009, <https://www.femina.com.ua/a/172.shtm>.

⁹ Fedotov, George P., *The Russian Religious Mind*, vol. 1: *Kievan Christianity: the tenth to the thirteenth Centuries*, Cambridge, Mass., Harvard University Press, 1966, pp. 315ff.

¹⁰ Nelson, John, “Lending support to Russian dual faith (dvoeverie) as a facet of identity – aspects of belief in Rimsky-Korsakov's operas”, Schopf, Fiona Jane (ed.), *Music on Stage*, Newcastle upon Tyne, Cambridge Scholars Publ., 2016, p.162 (18).

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¹¹ Idem, p. 148 (4).

¹² Idem, p. 144 (19).

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⁴⁷ Johnson, Kenneth, *Slavic Sorcery – Shamanic Journey of Initiation*, St. Paul, Minn., Llewellyn Publ., 1998, p. 89.

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- ⁵⁷ Ryan, William F., *The Bathhouse at Midnight. An Historical Survey of Magic and Divination in Russia*, University Park, PA, The Pennsylvania State University Press, 1999, p. 189.
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FROM BEAUTY TO CIVILITY:
WRITING ABOUT AND DISPLAYING HERBS
IN CHINA

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Introduction

Herbs, written as 香草 (*xiangcao*) and 草药 (*caoyao*) in the Chinese script, have played a crucial role in Chinese cultural history. A material object doubling up as a sociocultural sign, herbs are the very site of interplay between everyday life and literary expressions, from traditional times to contemporary China. In such a context, this paper traces the representation and visualisation of herbs in Chinese literature and culture from the pre-Qin era (221 BCE) to the 21st century. By examining herbs in various genres and texts, we intend to address the following questions: How do herbs become a frequently used imagery and motif in classical poetry? How did writing about herbs evolve with the emergence of literary reform and the dawn of modernism during the 20th century? What role do herbs play in forging and exhibiting an urban space in contemporary China? Engaging with the scholarship of literary criticism and cultural studies, we aim to not only explore the diachronic genealogy of writing about herbs in Chinese literature, but also decode the sociopolitical connotations of writing about and visualising herbs at different locations.

Specifically, this chapter will begin with an examination of herbs mentioned in classical Chinese poetry. The analysis will highlight the function of the imagery of “herbs and beauty” (*xiangcao meiren* 香草美人) as a rhetorical device in traditional poetics. In this way, we try to understand how the symbolic and metaphoric writing about herbs consolidates the Chinese

poetic tradition of “poetry expresses intents” (*shi yan zhi* 詩言志), as well as redefines the convention of male writing.¹ Then, our study will move forward to the early 20th century, when the New Literature Movement transformed the ways that literature was written and read. On the one hand, the writing about and recording of herbs has become a mark for modern scientific knowledge in contrast to what they were in the Chinese tradition; on the other hand, herbs in the new literature serve as a means to invigorate memories for modern writers who have suffered from social turbulences.

Subsequently, we will take the 2019 Beijing Garden Expo as an example to examine the exhibition of herbs in the contemporary urban space of China. We will show that the visual display of herbs is structured by the identity, ideology and civility of the exhibition’s organisers, which is similarly observed by other scholars.² However, our study will further unravel the relationship between the visualisation of herbs, the restoration of traditional culture and the symbolic power of China in a transnational context. Finally, this chapter will conclude with the argument that herbs have become a potent signifier that indexes the modalities of literary and cultural life in China, through their written and visual representation to reflect the depth of human desires and the uncertainty over radical social changes.

Herbs in classical poetry: affect and symbolism

Writing about herbs in pre-modern Chinese literature can be dated back to as early as the 7th century BCE, when the earliest anthology of Chinese verse, *The Classic of Poetry* (*shijing* 詩經), was composed.³ In this anthology, the evocation of herbs is a well-established rhetorical tool, which commonly draws a symbolic connection to the ideal of virtue conceptualised by the poet. Despite the variety of subjects and themes in the anthology, scholars have identified three basic modes of presentations: *fu* (exposition), *bi* (comparison) and *xing* (affective image).⁴ The reference to and depiction of herbs are intimately associated with these modes of presentations. In other words, exposition, comparison and affective image as traditional rhetorical devices are often practised through writing about herbs and plants in *The Classic of Poetry*. For example, in the poem “Cai Fan” (采蘋), the first two stanzas provide a vivid image of a woman gathering *fan*, the aromatic herb known as artemisia or southernwood: “She gathers the white southernwood; / By the ponds, on the islets. / She

employs it; / In the business of our prince” (于以采蘋、于沼于沚。于以用之、公侯之事)。⁵ Southernwood was commonly used for decoration, medicine and sacrificial services in ancient China. According to Cai Zongqi’s reading, this poem is “the plaint of a palace woman who is preparing a sacrifice for her ruler’s ancestors.”⁶ The gathering of southernwood at different places is a celebration of the woman’s labour. These opening lines could be considered an example of *fu*, employed to illustrate people’s daily life and particularly that of women at work. The tonality of the language suggests the labour of gathering herbs is a repetitive and arduous activity, which carries a slight complaint as reflected in the ending stanza, “With head-dress reverently rising aloft; / Early, while yet it is night, she is in the prince’s temple; / In her head-dress, slowly retiring; / She returns to her own place” (被之僮僮、夙夜在公; 被之祁祁、薄言還歸).

In addition to the use as *fu*, writing about herbs is more frequently seen in the last two modes of presentation: *xing* and *bi*. In another poem, “Cai Wei” (采薇), herbs are used as the affective image to evoke certain sentiments. Each stanza begins with the same first line: “Let us gather the thorn-ferns, / let us gather the thorn-ferns” (采薇采薇). Then, the second line of each stanza describes three phases in the growth of thorn-ferns, from “the thorn-ferns are now springing up” to “the thorn-ferns are now tender,” then followed by “the thorn-ferns are now hard.” Here, the image of people gathering thorn-ferns is used not only to depict daily labour, but also to imply the flowing of time through the herb’s growth from sprouts to twigs. Lamenting the passage of time further evokes people’s longing for home, since the following lines repeat the same question: “When shall we return?” By being kept away from home in order to serve the king, people’s homesickness accelerates and their sorrow turns into distress. In this way, the herb affectively channels the sentiments expressed in the poem and foreshadows people’s grief in the last two lines of each stanza: “Our sorrowing hearts are in great distress; / But we shall not return from our expedition.” Yet it is worth noting that there is not always a definite distinction between the use of *xing* and *bi* in any one poem, such as in the case of the poem “Zhong Gu” (中谷) in which herbs are presented by means of and for the effect of both *xing* and *bi*.

Each stanza of the poem starts with stating the herbs are growing in the valley: “In the valleys grows the mother-wort.” The writing of mother-wort, a herbal medicine, once again exemplifies the use of *xing*. In three

stanzas, the poet depicts the gradual withering of the mother-wort: “But scorched is it in the drier places.” Following this, each stanza ends with a woman’s sigh and suffering as she is “forced to leave her husband” (有女仳離、嘸其嘆矣). The sentiment of sorrow is precisely triggered by the herb’s process from blooming to scorching, which resonates with the experience of an abandoned wife. Here, the herb functions as an affective image to evoke feelings of sympathy and melancholia. But more importantly, the poem draws a comparison between the life cycle of mother-wort and the experience of the abandoned wife. The woman and her married life start with the analogy of burgeoning mother-wort, which is lively and vigorous. However, when the woman is forced to leave her husband, her melancholia makes her wither as does a herb at the end of its life. In this poem, the life cycle of herbs functions as a metaphor for a woman’s life and emotions, reflecting the impact of abandonment on a woman.

The diverse and recurring imagery of herbs in *The Classic of Poetry* established a precedent that became a tradition for poets of later generations. Scholars of different times have also given plenty of attention to the language of herb imagery and its importance in poetics. Apart from its function in triggering certain emotions and ethos as discussed above, the large cluster of herbs usually reveals the discontent that people suffer in the chaos of different periods. Of course, the natural beauty of some herbs could allude to the passion of love or the harmony of interpersonal relationships.⁷ Another salient aspect of herb imagery is its evocation of women and femininity, such as women’s feelings, experiences and labour. In this regard, it is not surprising that many examples of herbs in *The Classic of Poetry* are related to the portrayal of feminine beauty. The poem “Shuo Ren” (碩人), for instance, employs numerous herbs to depict the beautiful appearance of a young woman. It compares the woman’s fingers to a type of fragrant wild herb: “Her fingers were like the blades of the young white-grass” (手如柔荑), which is to say her fingers were slender and soft. As such, certain characteristics of feminine beauty in traditional China have been established.

After *The Classic of Poetry*, the semiotic relationship between herbs and ideas is continuously explored and expanded in other classical poetic genres, of which herbs as a signifier of women and beauty remains constant and paramount. *Lyrics of Chu* (*Chuci* 楚辭), for instance, are a celebrated example of the frequent and sophisticated use of herbs to

represent beauty and splendour. Dating back to the Warring States period (403–227 BCE), *Lyrics of Chu* are an anthology of poems written and compiled by scholars in the Chu region. Among them, Qu Yuan is the most prominent poet who contributed “Encountering Sorrow” (*Lisao* 離騷) and “Nine Songs” (*Jiuge* 九歌), which are at the heart of the *Chuci* canon. Notably, Qu Yuan’s poems are recognised as “a rich and exotic botanical image bank”⁸ and praised for their representation of “metaphorical journeys”⁹ in his use of herb imagery and his reference to a remarkable shamanistic style. Since herbs and flowers are the “important components of a shamanistic ritual”,¹⁰ they are associated with divinity in the religious practices of the time, which connotes the qualities of “sincerity, beauty, and solemnity”.¹¹ Moreover, Qu Yuan started the aesthetic tradition of endowing herbs with humanity, making them not only suggest divinity but also human virtuousness and righteousness. In Qu Yuan’s poetics, interestingly, beauty (*meili* 美麗) is not merely signified by herbs. Rather, beautiful women (*meiren* 美人) themselves become a symbol of loyalty and patriotism, which is then superimposed with herbs as a metaphor for purity, fragility and other characteristics. With herbs and beauty being the most common rhetorical device in *Lyrics of Chu*, the representation of herbs is also inseparable from the feminine voice that the poet often and deliberately employs. For instance, the reference to various kinds of herbal plants marks the voice of a woman in “The Lord of the Xiang River” (“Xiang Jun” 湘君).

In the poem, the poet mentions many different kinds of flowers and fragrant herbs, such as cassia, fig leaves, melilot, iris and orchid. Most of these plants are decorations for the shamanistic performance portrayed in the poem. The poem adopts the voice of “a lovely lady with delicate beauty”¹² and depicts a ceremonial ritual performed by “a female shaman” addressing the quest for a male river god, Lord Xiang.¹³ Here, herbs are not only elements of a solemn religious performance but also the embodiment of sincerity and honesty. The motif of “Xiang Jun” is the female shaman’s quest for love, which is manifested by lines such as “Wafting my magic, I still have not reached him; / My women are upset and heave deep sighs. / My tears run down like small streams; / The thought of you makes me grieve” and “Our hearts are different: / all matchmaking is in vain; / Our love is not deep: / it is easy to break.”

The female voice propelled by the botanical imagery accretes into Qu Yuan’s unique poetic style, which enables his poems such as “Xiang Jun”

and “Nine Songs” to be read not only as the representation of a spiritual journey of self-discovery but also the performance of “ritual healing”.¹⁴ In this sense, the poetic and cultural connotations of herbs in *Lyrics of Chu* transcend the religious realm to allow the poet’s “spiritual world” to connect with the “realistic world”.¹⁵ These poetic elements contribute to the reception of Qu Yuan’s persona as a “model scholar-official” who is “cultivated, pure, accomplished, steadfast, and loyal, but vulnerable to the slanders and attacks of venal contemporaries at court.”¹⁶ More specifically, the stylistic resources including shamanism, botanical imagery and philosophical ideas have become a powerful tool of “self-expression” for Qu Yuan.¹⁷ Apart from drawing on the symbolism of herbs, the tactful employment of a female voice is an implicit way to express the poet’s own virtue and his loyalty to the ruler. Therefore, when Qu Yuan stumbled in his political life, he found an outlet in the poetic imagery of herbs and beauty, which manifested his dissatisfaction with reality and his persistent pursuit of righteousness and justice at the same time. The rescue of his masculine pride by the employment of a female voice is the triumph of the poetics of *xing* and *bi* invested in the herb imagery.

The mode of male poets writing in the female voice, which started in *The Classic of Poetry* and was lifted to a new height by Qu Yuan, needs further comment, since it has been such a prominent and elaborate art form in pre-modern Chinese poetry. On the surface, it expresses the motif of women’s complaints and promotes a sort of ‘realistic’ reading of poetry as a mirror of social reality. For instance, in “Cai Wei” discussed earlier, the woman speaker pines for her missing husband and we feel empathy for her. However, there is always a possibility of reading poetry figuratively and metaphorically, i.e., the theory of literature as a “lamp”,¹⁸ which has been a major feature of aesthetics in classical Chinese poetry. It is then plausible to suggest that the woman figure in “Cai Wei” is a representation of a male soldier in a state of grief and sorrow while away from home. Modern scholars are more likely to argue for the latter reading than the former, as Wang Li points out that women were unlikely to write poetry considering their social status and level of education in pre-Qin China, and these poems in *The Classic of Poetry* were almost certainly composed by male authors albeit adopting the voice of a melancholy woman.¹⁹ In this popular convention of evoking the symbolism of herbs in association with the figure of the female voice, Kang-i Sun Chang poignantly refers to a “gender mask”.²⁰ By putting on the “gender mask”, the literati in traditional China are able to inscribe their gender identity in poetry writing while

keeping a distance from possible political repercussions.²¹ In other words, the use of herbs in classical poetry is not only an expressive device, but also a medium that enables Chinese literati to displace their gender, transfer their intentions, and perform their social and political roles more safely and effectively. Speaking through the symbol of herbs reflects the predominant principle of “poetry expresses intent”, which dictates that “poems are always spontaneous, true reflections of the writer’s inner being.”²² In sum, a practice born out of the aesthetic value of metaphoric language in Chinese classical poetry, the herb imagery in *The Classic of Poetry* and *Lyrics of Chu* has set an example for poets in later generations, from being the figure of love in the “music bureau” poetry (*yuefu* 樂府) of the Han Dynasty, to the tropes of the lofty character favoured by the poets in Six Dynasties,²³ and to the even more flourishing of natural sublimity in Tang and Song poetry.

Herbs in fiction: knowledge, science and Chinese modernity

While the herb imagery in classical literature was commonly seen in the writings of scholars and literati who were considered as cultural elite in society, the functions and connotations of such imagery altered in response to the advent of the new literary genre: vernacular fiction, or the novel. Since the 17th century, vernacular fiction has established itself as a significant genre along with the social and cultural transformations in Ming and Qing Dynasties. Although writing in the classical Chinese language remained official and mainstream in the literary scene, the publication and circulation of vernacular fictions had seen substantial growth during this time. As manifested in many Ming Dynasty fictions including *Journey to the West* (西遊記) and *Plum in the Golden Vase* (金瓶梅), the knowledge of herbs, especially herbal medicine, is the “popular knowledge”²⁴ practised and experienced in quotidian life. As the continuity of using herbs as a symbol demonstrated that the rhetoric adapted itself to the new development of a genre, this innovation in literary practice however confronted the ideology of the cultural elite. During this time, fiction as a new genre had the ‘encyclopaedic nature that incorporates practical knowledge produced by everyday life experience.’²⁵ The writing about and use of herbs, in responding and accommodating to such a transition, significantly contributed to the portrayal of everyday life. Herbs, in particular herbal medicines, were usually presented and represented in

vernacular literature as common or popular knowledge, in contrast to elite or official knowledge.²⁶

Writing about herbs in fiction and the turning away from elite knowledge have had far-reaching impacts on late-imperial literature and literary history. This legacy has been carried on through modern times. In the early 20th century, China experienced numerous social and political transformations, including the end of imperialism. Reacting to the drastic transformations brought by social and national revolutions, modern intellectuals called for reforms in the cultural and literary scene. During the early Republican era (1917–1937), writing about herbs was interwoven with the national enlightenment project, with an urgency to reform literature in modern China. At the heart of the national literary reform was the promotion and popularisation of vernacular writings. Among the modern writers who introduced new ideologies and styles into the literary scene at the beginning of the 20th century, Zhou Zuoren was one who consistently and deliberately incorporated writing about herbs into the pursuit of his literary ideal. Specifically, he reinvented the tradition of recording various plants in an epistemological way, while highlighting the scientific nature of botany with an aim to capture the new structure of feeling.

Introducing the concept of the “essay” to China, Zhou Zuoren was an ardent practitioner of this new genre. In his writing, Zhou consistently utilised this new literary form to illustrate his idea of “proletarian literature” and “literature of humanity”.²⁷ In his earlier writings, Zhou aligned with other iconoclasts and promoted a new form of literature that aimed to emancipate people from the tethers of antiquated mentalities associated with the ‘old’ literature. Zhou’s attempt is particularly manifested by his promulgation of “proletarian literature”, which sets guidelines for his writing about herbs. “Proletarian literature” is defined as a genre that tells common people’s tales in a common form; but in his eponymous article, Zhou cautions us not to equate “proletarian literature” with “popular literature”. For Zhou, caring for the underprivileged is not tantamount to writing for the common people. Rather, common people are treated as objects for intellectuals to observe and study. The elitist and utilitarian approach permeates Zhou’s writing about herbs in the way that human subjectivity is crucial in appreciating herbs as an organic component in a modern subject’s artistic life.

In the 1920s, Zhou's essays, represented by "Drinking Tea" ("He Cha" 喝茶) and "Wild Edible Herbs in My Hometown" ("Guxiang de yecai" 故鄉的野菜), indicate the twofold function of inviting herbs into modern literature. First, "He Cha" epitomises Zhou's literary ideal that fuses artistic taste with humanism in the way that he meticulously discusses how green tea is the prime choice for tea-drinking and how tea, along with the use of exquisite utensils, reflects the art of living. Such a position situates Zhou in the romantic vein of modern literary tradition; whereas writing about herbs embarks on a dialogue with Western romantic literature. Moreover, by locating and naming the specifics of various kinds of wild edible herbs, like "huang hua mai guo" (黃花麥果), Zhou aims to illustrate how the knowledge of plants helps to disenchant Chinese people from unreasonable belief systems and wishful thinking about herbs as a gift from nature.

The second layer of meaning in writing about herbs for Zhou can be traced back to his childhood reading experience. When recounting his admiration for Chen Zi's *Mi Chuan Hua Jing* (秘傳花鏡), an encyclopaedic monograph on cultivation of plants published in 1688, Zhou noted in the essay "Hua Jing" (花鏡) that he saw the book as one of his old friends and always cherished it. Zhou stated that he has learned much about herbs that were easy to find in the countryside but not in historiography, since they were not "graceful" enough.²⁸ Thus, Zhou intentionally makes an effort to incorporate herbal knowledge into his writing projects and directs our attention to cultivation as a rigorously defined discipline of science. His agenda resonates with the prevalence of biological evolutionism at the time and indicates how scientific knowledge succeeds in warding off the unscientific penchant in traditional writing about plants.

For Zhou, one of the merits of *Mi Chuan Hua Jing* is that the author is anything but one of the traditional literati who sits in his study sifting through books and citing unfamiliar sources. On the contrary, Zhou particularly mentioned that Chen Zi had taken pains to categorise these herbs by investigating their colours and predilections, which Zhou considered as a systematic and scientific way of studying plants. In pre-modern China, there was a general lack of interest in studying nature: "Although there were descriptions of vegetation, insects and aquatic life in famous works, local chronicles, medical and agricultural books of all dynasties, they had not become independent studies after all."²⁹ This phenomenon, admittedly, was related to the system of civil examinations

and the privileging of textual studies over fieldwork. Yet, it is the scientific characteristic of *Mi Chuan Hua Jing* that parallels Zhou's own theoretical approach.

In the following decades, Zhou grew increasingly obsessed with presenting different kinds of sources when describing herbs. In "The Stalk of Amaranth" ("Xiancai geng" 莧菜梗), Zhou listed much textual evidence to account for "xiancai", a common type of edible herb in rural China. This strong interest culminated in his 1939 essay "The Popular names of Wild Herbs" ("Yecao de suming" 野草的俗名), in which Zhou introduced popular names assigned to eight kinds of wild herbs in his hometown, Shaoxing, Zhejiang Province. In this essay, Zhou's intention is not to encourage people to study herbs so as to be professional herbalists. The point of passing on knowledge of herbs, from Zhou's standpoint, is to instil some common sense in people's minds. In his essay "On The Women's Movement and Commonsense" ("Funü yundong yu changshi" 婦女運動與常識), Zhou straightforwardly laments that:

Today's Chinese people, men and women alike, lack common sense. It applies not only to most people without education, but also to the so-called intellectual class who have received higher education in their own countries or abroad. They may have specialized knowledge that emphasizes one domain, but they have not integrated all the common knowledge. Therefore, their comments are somewhat puzzling and eventually become the 'stale and muddy wine in the new bottle.'³⁰

Here, Zhou's oeuvre could be considered as "a systematic and coherent construction of his alternative approach to enlightenment."³¹ In other words, Zhou envisions to use herbs as an alternative means to reinforce the importance of acquiring common sense when dominant discourse of enlightenment becomes dogmatic and authoritative to the point that it has ceased to be productive and dialectical. This also bespeaks the reason why Zhou grew apart from his previous comrades when he realised that it was imperative not to mystify and canonise the May Fourth spirit.³² In this sense, the common knowledge represented by the herbs in Zhou's writing becomes an effective weapon to reflect upon enlightenment.

Herbs as tropes of nostalgia and desire

Throughout the Republican period, herbs became a common motif for writers who migrated from rural areas to urban cities, to express their

nostalgia towards a disappearing countryside and to construct a site of memory. During this period, herbs also stitched together various discourses that revolved around Chinese modernity when modern intellectuals were facing a time of large-scale social transition and geographical dislocation. As the national crises escalated during the Second Sino–Japanese War, herbs served as a far-reaching utopia for writers to express their lyrical bent. Xiao Hong, for instance, wrote about her grandfather’s garden in a restorative and therapeutic way. Her idyllic portrayal invokes a sense of nostalgia that is forever at a loss and a yearning that is endlessly unfulfilled. Herbs thus assume a role of healing in times of turmoil and bespeak how writers respond to trauma at its most intense moment. The solace provided by herbs soothes the traumatic aftermath of massive changes and their enduring repercussions. Inspired by the social and spiritual functions of herbs, Xiao Hong, originally from the north-eastern part of China, constructs a mirage-like garden in her writing, which is saturated with herb imagery. Notably, herbs constitute an essential component in Xiao Hong’s nostalgia for her childhood and hometown, while simultaneously serving as a foil for the remoteness of China’s rural north-eastern region.

In Xiao Hong’s novels and short stories, there is the recurring imagery of the “back garden” where herbs grow to their full capacity. The vitality and wide variety of herbs glorify a long-lost past, which makes the desolate town vibrant in Xiao Hong’s memory. The binary nature of herbs in Xiao Hong’s writing unfolds her own conflicted attitude towards her Japanese-occupied hometown when she was staying in China and elsewhere. In alignment with the symbolic meaning of herbs as representing a virtual and vicarious home-coming, Xiao Hong took pains in describing the colour, variety, growth and, most importantly, the resilience and tenacity of herbs. In “Back Garden” (“Hou huayuan” 後花園), Xiao Hong wrote, “Flowers grow on cucumbers despite the fact that the silky tendril of the annoying melon is wrapping around them, much more, pulling them down. Even though the flowers fall to the ground, they are still blooming. The shovelers always pluck them when they meet the flowers, but the more they pluck them, the faster they grow. The flower seeds fall to the ground and soon they give birth to new ones.”³³ The way that the unattended flowers manage to survive and thrive parallels the loneliness and resilience of Xiao Hong’s life of constant migration at the most turbulent time in modern China.

Similarly, in her well-received autobiographical novel *The Tale of Hulan River* (*Hulanhe zhuan* 呼蘭河傳), Xiao Hong devoted much space to reminiscing about the “big garden” of her childhood home, from a child’s perspective. The garden is like a wonderland in the sense that every creature is doing things of its own without any tethers:

Flowers bloom, just like flowers wake up. Birds fly away as if they are disappearing into the sky. Insects bark as if they are talking. Everything is alive. Every little thing has unlimited ability to do whatever it wants. All are free. Pumpkins climb onto the shelves if they want to, and climb onto the house if they want to. If a cucumber is willing to bear a yellow flower, it will bear a yellow flower; if it is willing to bear a cucumber, it will bear a cucumber. If a cucumber does not want to bear anything, then it will bear nothing and nobody would bother it. Corns grow as tall as they like, and nobody cares if they want to go to heaven.³⁴

These freewheeling plants in the garden constitute an idyllic utopia in which Xiao Hong preserves her most precious recollections with her grandfather. This highly idealised garden is Xiao Hong’s old playground and is forever fixated into her memory. The feeling of familiarity and safety is unreachable to the wandering Xiao Hong, and the days of being a happy-go-lucky child like those carefree plants are gone; yet she nevertheless reconstructs a mnemonic palace to restore the past by writing. Through revisiting and reliving her childhood memory, the garden in her novel summons Xiao Hong into her affectionate reminiscence with her grandfather, which finally grants her an opportunity to come home in her diasporic journey.

Ironically yet unsurprisingly, the freedom and mobility of the plants in the gardens that Xiao Hong meticulously conjured up are constantly depicted in conjunction with the dead-end future and daily grind of local residents. In “Back Garden”, the protagonist who works as a miller suffers from the long-term repression of his desire. He is then married to an equally unfortunate widow in the same village. However, a few years after his marriage, both his wife and newborn child die. In the story, Xiao Hong does not comment on the character’s fate directly or explicitly; instead, she goes on to outline how the plants in the garden still grow healthily:

In the summer of the following year, the flowers and plants in the back garden were so lively that cucumbers climbed up the tree mischievously. Sunflowers bloomed, causing swarms of bees to stir up trouble. Big pots of parthenocissus *tricuspidata*, ‘Horse Snake Cabbage’ and ‘Yan Powder Bean’ all blossomed. They were dazzling, and scattering fragrance as well.

The cucumber that climbed up the window lattice of the mill year after year has climbed up again this year. Those who bear fruit year after year bear fruit again this year. After several times of prosperity and withering in the back garden, the big purple flower seems to be going on for generations. After winter and spring, it keeps blooming in the garden year after year.³⁵

The cyclical nature of plants vis-à-vis the ephemeral and fragile human beings bears witness to Xiao Hong's rumination about her ill-fated hometown people. Considering the backdrop of Xiao Hong's times, even in her most lyrical and private expressions, the reality sinks in and a heavy dose of sympathy is expressed subtly via the seemingly nonchalant recounting of the herbs. Perhaps it is not far-fetching to argue that the lushness of herbs permeates Xiao Hong's writing and points to a utopian time-space, as Xiao Hong is facing a cascade of crises in her endless roaming days. The trope of plants reveals Xiao Hong's personal nostalgia for a lost hometown; whereas it also functions as a reminder for the hopeless peasants who are torn by the Japanese invasion and their poverty-stricken daily lives.

Apart from echoing the changing literary trend and enriching the everyday life experience, Xiao Hong's nostalgic writing about herbs mirrors another trope in Chinese literature: lyricism, or the expression of emotion (*shuqing* 抒情). Lyricism in Chinese literature has been a long-standing tradition, which was observed by generations of scholars. If "poetry expresses intent" dominates classical Chinese literature, as discussed earlier, it stands to be modified by "poetry follows from emotion"³⁶ (*shi yuan qing* 诗源情), which seeks to redefine literature in its purpose and presentation. By such a literary paradigm, herbs once again play a crucial role in connecting the depiction of nature with the authors' perception of their internal world. The way that herbs are represented in modern literature not only carries on, but further develops and rewrites the lyrical tradition of classical Chinese literature.³⁷ However, lyricism in literature was disrupted during the socialist era (1950s to late 1970s). With the flourishing of socialist and revolutionary literature, lyricism was allowed merely for acclaiming socialist causes. Meanwhile, excessive revolutionary zeal and political messages overshadowed the expression of individual and personal feelings. During this time, herbs and other imagery were overdetermined to carry out the symbolic meanings of communist revolution. Two important literary schools arose during the socialist period, "Hehuadian pai" (荷花淀派) and "Shanyaodan pai" (山药蛋派), both devoted to depicting the

transformation brought by the sweeping revolutionary projects in local villages. Although the writers of these two groups mainly set their stories in the countryside, the natural scenery of the rural areas was downplayed while the ongoing conflicts between disparate classes were put under the spotlight.³⁸ When the natural scenery, including the description of herbs, occurs in the writing of socialist realism, it nevertheless functions to underline the stereotypical images of socialist subjects.

In the late 1970s and early 1980s, significant changes occurred in the writing about herbs, echoing the ebbing of revolutionary projects and the accentuating trend of global neoliberalism. Herbs ceased to convey the revolutionary message or to contrast the negative image of enemies with the positive image of proletariat comrades.³⁹ As a gesture of farewell to the period of high socialism,⁴⁰ writers like Wang Zengqi (1920–1997) re-established the connection between herbs and the personal expression of lust and desire. After nearly three decades of pausing his literary works, Wang Zengqi published his novella “Buddhist Initiation” (“Shoujie” 受戒) in 1980, which instantly earned him the reputation for being “China’s last scholar-official (*shidafu* 士大夫)”.⁴¹ A protégé of Shen Congwen (1902–1988), Wang inherited Shen’s “lyrical archaeology” in the way that he synthesised trivial subjects with a larger socio-economic context and “reflected China’s ‘old life’ with the new thoughts of his era”.⁴² This feature is particularly manifested in Wang’s use of herbs in “Buddhist Initiation”, expressing a common sentiment of reflecting upon the remote native soil, which further adumbrated “root-seeking literature” in the late 1980s.

“Buddhist Initiation” represents a young boy’s journey of being ordained as a monk, while capturing the secular manner of living in a Buddhist temple named “Water Chestnut”: “There is no rule in the temple and nobody even mentions the word ‘rule’.”⁴³ The monks who live in the temple lead an unrestricted life, and take joy in marrying, eating meat and other activities that are usually forbidden for monks, yet are common for laypeople. Such portrayal of an iconoclastic temple alludes more to the social atmosphere in the 1980s than in Republican China. As the political control of literature lessened after China entered the ‘new phase’ of openness and reform in the late 1970s, articulating personal emotions and desire became a new trend to disenchant the myth of political dogma. Nevertheless, “Shoujie” is still criticised for taking on such a light-hearted tone in depicting the deviant monks. Such depiction, as one scholar points

out, indicates that the discourse of enlightenment has been surpassed by the longing for hedonism.⁴⁴ Despite its poignant tone, the criticism indeed reveals that the natural desire of monks embodies the open-mindedness of the cultural scene in the 1980s. Hence, what was once repressed again resurfaces on the historical horizon, and the exploration of human desire returns to writers' agendas.

In "Buddhist Initiation", the burgeoning romanticism between the teenage monk Minghai and his childhood sweetheart Yingzi is indicated by the symbolic meanings of the pomegranate flowers and cape jasmine. These two kinds of plants recur three times in the story. Each time, their presence guides us towards the development of the budding love between the two protagonists. Both flowers, as literary imageries, have the same characteristic of being a token for romantic love.⁴⁵ The flowers first appear when Wang describes the surroundings of Yingzi's family house, gesturing towards a potential romantic relationship in the following passage. After the couple get to know each other, Yingzi asks Minghai to draw a picture of the pomegranate flowers and cape jasmine. Such an action indicates how proactive Yingzi is in this relationship and reinforces the linkage between flowers and romance. Towards the end of the story, Yingzi wears these two kinds of flowers as hair accessories and proposes to Minghai. From drawings to her headdress, the flowers bear witness to Yingzi's love, implying how she audaciously and straightforwardly expresses her feelings to Minghai through action.

The story ends with a detailed depiction of reed marshes, where, as the author implicitly hints, Minghai and Yingzi have sexual intercourse. Interestingly, Wang Zengqi adapted the Shanghai opera *Tinders from the Reed Marshes* (*Shajiabang* 沙家浜), which also took reed marshes as an important place to stage the scene. The reed marshes in *Shajiabang* were the hiding place for the New Fourth Army, from where they launched their attacks against the Japanese occupying forces. Therefore, in this play, reed marshes are a symbol for the great cause of revolution.⁴⁶ As a contrast to the symbolic meaning of reed marshes in the revolutionary period, "Buddhist Initiation" employs the herbs as a literal and figurative bed for the young couple in love. Such innovative use of plants unveils Wang's attempt to subvert the previously constructed connection between plants and revolutionary tenets. Herbs no longer serve as a token of revolution; rather, they function as a medium to give voice to people's free will and pure love. Through disassociating herbs from the revolutionary narrative,

Wang's writing practice bears witness to the re-establishment of using herbs to express personal desire and pleasure. As a practice of restorative nostalgia,⁴⁷ Wang's writing retraces the Chinese lyrical tradition and recalls a literary convention that was temporarily repressed. As a result, the metaphorical herbs resume a crucial role in initiating the transformation of literature dominated by politics to literature of humanism and individual fulfilment. In a significant way, Wang Zengqi's depoliticisation of herb imagery opened a new path for Chinese writers to redefine the relationship between humans and nature, in the context of rapid social and cultural changes in contemporary China.

Visualising herbs and the performance of culture

Indeed, herb imagery is crucial in enriching the literary practice and in reflecting transformations in literary history. Writing about herbs is also intrinsically linked to how human activities and culture are structured. The reference to over 30 species of plants and herbs in Chi Zijian's award-winning novel *Last Quarter of the Moon* (額爾古納河右岸), for instance, makes the fiction a work of ethnobotany that not only informs the reader about the "indigenous knowledge"⁴⁸ of the Evenks, but also portrays the ecological and social changes in Evenki society over 50 years. Furthermore, the knowledge of herbs and plants represented in the novel challenges the conventional perception, which regards Evenki society as primitive and backward. The "indigenous knowledge" based on the expertise of using herbs precisely reflects how the Evenks are familiar with ecological conditions and changes, and how they use such knowledge to fulfil their needs. Their botanical and ecological knowledge, therefore, is much more comprehensive and possibly more advanced than people from a modern society.⁴⁹ In contemporary ecological writings, the descriptions of plants and herbs provide traces of human activities and native culture. Such an indexical relationship, on the one hand, reminds us of the modern literary trend in the early 20th century that treated botany as common and scientific knowledge. On the other hand, herbal knowledge has become a marked catalogue of human civilisation in both literary and cultural fields in the 21st century. In fact, the ways that herbs are categorised, planted, recorded and used are substantially affected by the paradigm of knowledge, the level of civilisation, and the relationship between power and culture. As Meng Yue aptly suggests, the intersection between botanical knowledge and civilisation potentially represents the development of human consciousness and the prospects for the future.⁵⁰

The association of the knowledge of plants with the level of civilisation, according to Meng Yue, can be dated back to the 19th-century travel journal written by Robert Fortune (1812–1880).⁵¹ At that time, tea, of all Chinese plants and herbs, became the measurement of Chinese civilisation alongside other ‘civilised nations’ such as Western Europe.⁵² Although the industrial, political and legal situations rendered 19th-century China ‘semi-civilized’ in the eyes of the Westerners, the knowledge and production of tea made Chinese civilisation irreplaceable compared with other cultures.⁵³ In her examination of herbal knowledge and the notion of being ‘semi-civilized’, Meng takes the level of civilisation as a discourse rather than merely a concept of colonialism or imperialism. She argues that civilisation as a discourse helps us probe into the “production of modern botanical knowledge” and trace the origins and conflicts between Chinese and Western cultures.⁵⁴ Meng’s approach foregrounds the relationships between civilisations and the botanical knowledge developed in the modern context. Such relationships, we contend, continue to play a crucial role in contemporary Chinese society. Specifically, we will use the concept of indigenous botanical knowledge as a way to examine the 2019 Beijing Garden Expo, and to uncover the ideology of the exhibition that supports and communicates the splendour of Chinese civilisation.

The Garden Expo is a state-sponsored recurring garden landscape fair and has been held in 10 different cities in China since 1997.⁵⁵ The Beijing 2019 Expo was hosted by the Chinese government and the Beijing Municipal People’s Government.⁵⁶ On its official website, the aims and goals of the event are described as:

It aims at boosting communication and cooperation between China and other countries in landscaping industries and displaying latest achievements in landscaping construction and management, as well as spreading landscape culture and ecological concepts. Besides, it also leads the trend of technological innovation; at the same time, it is devoted to promoting the construction of an energy-conserving and environmentally friendly society so as to advance the coordinated development of social economy, population, natural resources and environment.⁵⁷

It seems that the statement proclaims three major goals for the Expo: to promote technology, spread Chinese culture and draw international attention. It is through the visualisation of herbs and botanical knowledge that these goals will be realised. The entire Expo is composed of four pavilions, of which the Chinese one is the largest. The Chinese pavilion consists of 34 individually themed gardens that feature the plants,

environment and landscape of each province in China. These gardens are supposed to be not only a site of leisure and beauty, but also an embodiment of traditional Chinese culture. For instance, the Jiangsu Garden has replicated the famous Suzhou-style architectures, and planted various herbs and flowers throughout the landscapes of the garden.⁵⁸ When describing the design of the garden, the introduction on the official website draws the visitors' attention to the culture-related elements, such as couplets, Suzhou-style embroidery, tea and floral art. Above all, the garden is named a “poetic and picturesque province”, which highlights the connections between the display of plants and landscape, on the one hand, and classical literature and paintings, on the other (Figure 1).



Figure 1

The cultural history of herbs displayed in the Chinese pavilion goes back to 1600 BCE. For example, in the main exhibition hall, there are sculptures of ancient Chinese characters found on the oracle bones that are related to herbs, plants and gardening (Figure 2).



Figure 2

These sculptures are surrounded by the pictorial introduction of the herbs mentioned in *The Classic of Poetry*. By the side of each live specimen, the prose text of the introduction for each type of herb (origin, medical use and social function) is enhanced by original quotes of poetic lines from *The Classic of Poetry* (Figure 3).



Figure 3

In addition, the exhibition in the Chinese Pavilion gives prominence to the traditional paintings that feature mountains, rivers and plants. The artwork that catches visitors' eyes is the replica of the Song Dynasty painting titled *A Thousand Miles of Rivers and Mountains* (千里江山圖). According to the official website, the replica exemplifies the combination of modern technology and traditional art, since the artwork uses preserved fresh moss as its main material to recreate the original painting (Figure 4). The organisers would not let this minor detail slip past the visitors because it is a good example of the tradition of herbs being kept alive by modern technology. Other than the artistic values of herbs, their cultural and social functions are also major themes emphasised in the Expo. To this end, the Expo specifically designed an outdoor theme garden, "The Hundred Herbs

Garden” (百草園), which grows a variety of medicinal herbs, such as carum carvi, basil, and radix isatidis.⁵⁹ It is explained that the herb garden is designed to educate the visitors about traditional Chinese herbal knowledge, as well as to promote Chinese medicine to the world. While visiting the garden, visitors have the immersive experience of seeing how herbal medicine is grown, processed and utilised. In this process, visitors are no longer the passive receivers of information; rather, they become the subject of the culture as they participate in the procedure of cultural (re)production themselves.



Figure 4

Apart from displaying Chinese culture for its own citizens, the Expo is supposed to present China as an eco-friendly, techno-advanced and culturally powerful nation vis-à-vis other countries in the world. In order to attract international attention, the Expo established an international pavilion, the second largest in size, and welcomes foreign designers, suppliers and exhibitors. Interestingly, the official website draws a comparison between China and the U.S., attempting to reveal the “harmony in diversity between the Oriental and Western gardening spaces”.⁶⁰ By constructing an exhibition garden that grows plants from both China and the U.S., the organiser argues that, despite the ‘differences’ between the two countries, the fact that native plants of China have thrived in the U.S.

indicates how “Chinese native plants influence public space design” in Western countries.⁶¹ Expanding the herb imagery into the intercultural space, plants and herbs are now regarded as a tool to explore the interaction between Chinese civilisation and Western cultures.

The narrative of herbs and plants orchestrated by the official organiser and its state sponsor begins with their history that intersects the written text and the live examples, and continues with their privileged status to celebrate China’s traditional culture and its modern achievements, before ending with their reference to China’s reach and influence on the world. Herbs are things of natural beauty and also a token of civility within and without one’s own culture. In terms of displaying China to its own people and to the outside world, it could be argued that visualising herbs in the 2019 Beijing Expo has become a process of interpellation,⁶² in which herbs are vital to the performance of culture inscribed in the discourse of national pride in present-day China. In this process, herbs as an artistic and cultural sign mitigate the hint of hegemony inherently embedded in the narrative of claiming them as emblems of national pride. In one way or another and much like the use of other cultural signs from Chinese tradition, herbs help to reproduce the nationalist ideology by obscuring the relationship between a dominated state subject and a subjugated civilian object. Within the environment of immersion and affect created by the Expo, visitors/individuals recognise themselves as subjects located in the nationalist ideology, and are incorporated into the power and social structure based on this very ideology.

Conclusion

From pre-modern to contemporary China, herbs have undergone a long journey from articulating human emotions to reflecting on human activities. It is through this journey that herbs realise both a practical function, as a material object, and a symbolic function, as a cultural sign. In this chapter, we have traced the representation of herbs in Chinese literature and culture from the 7th century BCE to the 21st century. By analysing herbs in written text and visual exhibitions, we have explored herbs’ metaphoric and symbolic connotations, and how they continue or evolve in response to social and political changes in Chinese society.

In classical poetry, herbs are used as a symbol for the beauty and virtue of humanity. While writing, poets tend to articulate their innermost emotions

and ambitions through the mirror image of natural objects, such as herbs. Therefore, the poetic writing about herbs consolidates the literary convention of “poetry expresses intent”, which enables the poet to speak in the metaphorical language tactfully and circuitously. Herbs thus are coded and reformulated into a set of symbols in order to transmit the poet’s interior thoughts when their sensibilities are held back by social or political restrictions.

Entering the modern era, the sentiments of anti-tradition have spurred reform-minded intellectuals to creatively reassess the pre-existing modes of lyrical writing. Responding to the literary innovation, herbs have been employed as a specific kind of modern knowledge that represents rational and scientific thinking. Being upheld as an agent for Chinese modernity, herbs in literature at the same time invoke a sense of nostalgia in the face of massive social turbulence. It is the tension between looking onwards and backwards that instils meanings into herbs in modern Chinese literature and, to a certain extent, has made herbs an overdetermined signifier.

Yet, as the revolutionary enthusiasm faded away in the 1980s, Chinese writers began to re-emphasise the association between herbs and lyricism, with the aim of deconstructing the grand historical narrative of enlightenment or high socialism. By restoring the connection between herbs and human desire, herbs resume a key role in writing individual-centred literature. At the same time, as environmental awareness increases, herbs appear more frequently in contemporary ecological writings. In this context, herbs are not only a symbol of human feelings but also a testimony to human activities. Through visualising herbs in contemporary urban space, they have been assigned with two roles: the miracle cure, which constitutes an essential part of Chinese medical culture, and the exquisite flora, which bears the aesthetic values at the heart of traditional paintings and architecture. Either way, herbs have become a standard bearer for native and national cultural heritage, and have been luminously used in contemporary China’s nationalist discourse.

Above all, our discussion foregrounds the interrelation and interaction between humans and herbs in various forms of literature and at different sociocultural venues. Yet, herbs show a greater prospect for future research, as we shift away from the human-centred point of view. The contemporary Hong Kong-based artist Zheng Bo (1974–), for instance,

probes into the potentiality of plants and envisages a larger worldview by extensively engaging herbs with his artworks as a proactive response to the ever-escalating ecological crisis. For Zheng, accentuating the agency and ‘self-containability’ of organisms like herbs is a good way for us to rectify the tendency of subjugating flora and fauna to human beings. In his own words, “ecological art practices as a whole is [sic] not an art school or an art movement, but a paradigm shift. The key is to extend the scale from humans/society to everything/Earth.”⁶³ Needless to say, Zheng’s innovative approach to herbs undermines the hierarchical structure among living beings. His attempt to construct a symbiotic relationship not only among plants per se, but also between plants and the human race, calls for a new imagining of the meaning and the significance of herbs for the human world.

Notes

¹ Writing was a field dominated by male poets and scholar officials in traditional China. Ever since “herbs and beauty” was established as a rhetorical device, male writers started to use the female voice to comment on the affairs of the state so as to avoid possible political repercussions. For more discussion, see Kang-i Sun Chang, 13-17.

² Meng Yue 孟悅, “Fanguan banwenming: Zhongguo zhiwu zhishi de zhuangui yu fenliu” 反觀半文明：中國植物知識的轉軌與分流 [Reflecting upon semi-civilization: the transition and bifurcation of Chinese botanical knowledge], in *Shijie zhixu yu wenming dengji* 世界秩序與文明等級 [The order of world and level of civilization], ed. Liu He 劉禾 (Beijing: Beijing shenghuo dushu xinzhishanlian shudian, 2015).

³ Cai Zongqi. *How to Read Chinese Poetry: A Guided Anthology* (New York: Columbia University Press, 2018), 13.

⁴ Ibid.

⁵ All translations of *The Classic of Poetry* in this chapter are from James Legge, which can be found on the “Chinese Text Project 中國哲學書電子化計劃.” <https://ctext.org/>

⁶ Cai, 26.

⁷ Chen Pengcheng 陳鵬程, “Jianlun shijing zhong de cao yixiang” 簡論《詩經》中的草意象 [A brief discussion on the herb imagery in *The Classic of Poetry*], *Gudian wenxue manbu* 古典文學漫步 12 (2010): 187-88.

⁸ Victor Mair. *The Columbia History of Chinese Literature* (New York: Columbia University Press, 2010), 254.

⁹ Ibid.

¹⁰ Cai, 39.

¹¹ Cai, 12.

¹² All translations of *Lyrics of Chu* in this chapter are from Cai Zongqi in *How to Read Chinese Poetry*.

¹³ Cai, 39.

¹⁴ Christopher Leigh Connery, “Sao, Fu, Parallel Prose, and Related Genres,” in *The Columbia History of Chinese Literature*, ed. Victor Mair (New York: Columbia University Press, 2010), 226-228.

¹⁵ Xiao Tianqing 效天慶, “Cong xiangcao de meixue yiyun kan zhongguo gudai wenren de shenmei qingjie” 從香草的美學意蘊看中國古代文人的審美情結 [The sublimation of personality: the aesthetic implication of herb and aesthetic complex of Chinese scholars], *Gansu gaoshi xuebao* 甘肅高師學報 13, no.6 (2008): 39-41.

¹⁶ Connery, 228.

¹⁷ Ibid.

¹⁸ M.H. Abrams proposed that the Romantics, in contrast to neoclassical poets, thought of literature as a lamp. While neoclassicists regard literature as a reflection of life, romantics believe that the literary creation illuminates the world through the light ignited by the writers’ inner feelings. See *The Mirror and the Lamp: Romantic Theory and the Critical Tradition* (Oxford: Oxford University Press, 1971).

¹⁹ Wang Li 王立, “Chuantong wenxue de hanxumei yu wenren xingge jixi” 傳統文學的含蓄美與文人性格解析 [The literature and the character: analysis of the mild expression in the traditional male literature], *Journal of Linyi Normal University* 32, no. 4 (2010): 89.

²⁰ Yin Xiaoyan 殷曉燕 and Wan Ping 萬平, “Shige zhong de mianju meixue: cong Qu Yuan xiangcao meiren zhi yinlei piyu shuoqi” 詩歌中的面具美學：從屈原“香草美人”之“引美譬喻”模式說起 [The aesthetics of mask in poetry: from Qu Yuan’s metaphors of ‘herbs and beauty’], *Literature and Art Criticism* 1 (2016), 49-53.

²¹ Yin and Wan, 52.

²² Cai, 211.

²³ Yin and Wan, 49.

²⁴ Andrew Schonebaum, *Novel Medicine: Healing, Literature, and Popular Knowledge in Early Modern China* (Seattle: University of Washington Press, 2018), 8.

²⁵ Schonebaum, 5.

²⁶ Schonebaum, 7-8.

²⁷ Zhou Zuoren 周作人, “Pingwen wenxue” 平民文學 [Proletarian literature], *Commentary Weekly* 5 (1919), 1.

²⁸ Zhou Zuoren 周作人, *Wo de zaxue* 我的雜學 [My miscellaneous studies], ed. Zhang Lihua 張麗華 (Beijing: Beijing Publishing House, 2005), 86.

²⁹ Han Lianqing 韓連慶, “Xijiao chongyu guoyisheng: Zhou Zuoren de bowuxue” 細校蟲魚過一生——周作人的博物學 [A life of examining insects and fish: Zhou Zuoren’s study of natural history]. *Dushu* 讀書 (2013):141-146.

³⁰ Li Tonglu, “To Believe or Not to Believe: Zhou Zuoren’s Alternative Approaches to the Chinese Enlightenment,” *Modern Chinese Literature and Culture* 25, no. 1 (2013): 206-60.

³¹ Li, 208.

³² May Fourth spirit was embodied by a group of reform-minded modern intellectuals who wholeheartedly trumpeted a critical spirit and iconoclastic thinking. For more information, see Chow, *The May Fourth Movement* (Harvard University Press, 2013).

³³ Xiao Hong 蕭紅, “Hou Huayuan” 後花園 [Back Garden], *Fangcao: Novel Monthly* 小說月刊 2 (2015): 4-11.

³⁴ Xiao Hong 蕭紅, *Hulanhe zhuan* 呼蘭河傳 [The Tale of Hulan River] (Wuhan: Changjiang wenyi chubanshe, 2005), 89.

³⁵ Xiao Hong 蕭紅, 4.

³⁶ Wang David Der-wei. *The Lyrical in Epic Time: Modern Chinese Intellectuals and Artists Through the 1949 Crisis* (New York: Columbia University Press, 2015), 8-9. “Poetry follows from emotion” (*shi yuan qing* 詩源情) was proposed by the poet, Lu Ji (陸機, 261-303), from the Western Jin Dynasty.

³⁷ The concept of “lyrical tradition” was proposed by Chen Shih-Hsiang in the 1970s, which helped to conceptualise the temporality and sensibility of lyricism in modern Chinese literature. For more discussion, see Wang David Der-wei, 37-38.

³⁸ Wei Hongrui 魏宏瑞. “Xiaoshi de ‘fengjing’ xian: shiqinian (1949–1966) xiangtu xiaoshuo zhong de feng, hua, xue, yue” 消失的「風景」線——十七年(1949–1966) 鄉土小說中的風、花、雪、月 [The disappearance of *fengjing*: wind, flowers, snow, and moon in *shiqinian* native novels (1949–1966)], *The Journal of Nanjing Normal University* (2011): 147-151.

³⁹ Ke Nongzhang 柯弄璋, “Lun ‘shiqinian’ geming lishi xiaoshuo zhong de fengjing miaoxie” 論十七年革命歷史小說中的風景描寫 [On the scenic description in the “shiqinian” revolutionary and historical novels], *Shandong shehui kexue* (2019): 117-123.

⁴⁰ “High socialism” is the historical periodisation referring to the timeline from the 1950s to the 1970s in China, characterised by the politicisation of everyday life, the fluid class-label system and the grassroots’ massive engagement in state political campaigns. For more discussion, see *Maoism at the Grassroots: Everyday Life in China’s Era of High Socialism*, ed. Jeremy Brown and Matthew D Johnson (Cambridge: Harvard University Press, 2015).

⁴¹ Li, Qingxi 李慶西, “Wang Zengqi zuopin yantaohui zhuanji” 汪曾祺作品研讨会专輯, *Beijing Wenxue* 北京文學 1 (1989).

⁴² Yan Zuolei 閻作雷, “Shuqing kaoguxue: Wang Zengqi ‘Shoujie’ de yizhong dufa” 抒情考古學：汪曾祺《受戒》的一種讀法 [Lyrical archaeology: one way to read Wang Zengqi’s ‘Buddhist Initiation’], *Wenxue Pinglun* 文學評論 (2020): 101-110.

⁴³ Wang Zengqi 汪曾祺, “Shoujie” 受戒 [Buddhist initiation], in *Selections of Contemporary Chinese literature* 中國當代文學作品選 (Wuhan: Wuhan

chubanshe, 2015), 66.

⁴⁴ Wang Benzhaoh 王本朝, “Dushen de shixing: ‘shoujie’ zuowei 1980 niandai de wenhua yuyan” 讀神的詩性:《受戒》作為 1980 年代的文化寓言 [The blasphemous poetics: ‘Shoujie’ as a cultural allegory in the 1980s], *Dangdai Wentan* 當代文壇 (2012): 22-25.

⁴⁵ Hua Minlang 華珮朗, “Wang Zengqi zuopin zhong de zhiwu shuxie” 汪曾祺作品中的植物書寫 [The writing of plants in Wang Zengqi’s works], *Chuangzuo pingtan* 創作評譚 (2019): 45-50.

⁴⁶ Ibid.

⁴⁷ “Restorative nostalgia” was proposed by Svetlana Boym, referring to the reconstruction of the national past, and a return to national symbols. See Boym, *The Future of Nostalgia* (New York: Basic Books, 2001).

⁴⁸ Zhang Jianfei 張箭飛, “Xunlu E’wenkeren de zhiwu liyong yu xiangtu zhishi: chongdu ‘E’ergunahe youan” 馴鹿鄂溫克人的植物利用與鄉土知識: 重讀《額爾古納河右岸》 [Botanical use and indigenous knowledge of the reindeer Evenki: A rereading of *Last Quarter of the Moon*], *Zhongguo xiandaiwenxue yanjiu congkan* 中國現代文學研究叢刊 11(2018): 157-176.

⁴⁹ Zhang, 173.

⁵⁰ Meng, 410-411.

⁵¹ Meng, 407.

⁵² Meng, 408.

⁵³ Meng, 424.

⁵⁴ Meng, 416.

⁵⁵ “China International Garden Expo,” 15 March 2016, http://www.horti-expo2019.org/2016-03/25/content_38111987.htm.

⁵⁶ “Notice to Recommend Service Suppliers to Exhibitors,” 27 April 2017, http://www.horti-expo2019.org/2017-04/27/content_40704008.htm.

⁵⁷ See note 53 above.

⁵⁸ “Jiangsu Garden: A poetic and picturesque province,” 26 July 2018, http://www.horti-expo2019.org/2018-07/26/content_57829229.htm.

⁵⁹ “Baicao yuan: Shang baicao yuanyi, pin jiankang shenghuo” 百草園: 賞百草園藝 品健康生活 [The Hundred Herbs Garden: Appreciate herbal gardening and taste healthy life], 11 April 2019, http://www.horti-expo2019.com/2019-04/11/content_74670927.htm.

⁶⁰ “East and West Park: Harmonious and Diverse ‘East and West,’” 21 August 2018, http://www.horti-expo2019.org/2018-08/21/content_59582589.htm.

⁶¹ Ibid..

⁶² The interpellation process was introduced by Louis Althusser in his 1972 essay, “Ideology and Ideological State Apparatuses”. Althusser believes that the interpellation process enables individuals to recognise themselves as subjects while being ‘complicit’ with state ideologies that dominate them.

⁶³ Zheng Bo 鄭波, “Ecological Art Practices in a Good Anthropocene,” *New Arts* 新美術 6, 2018, 5-8.

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FROM HEALING PLANT TO SECOND
“TREE OF LIFE”:
ANNEDDA’S CULTURAL JOURNEY
ACROSS THE ATLANTIC OCEAN

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From 1535 to 1536, Jacques Cartier undertook his second expedition to North America with the blessings of King Francis I of France. During the winter of his voyage, many members of his crew contracted a serious illness. They were cured by an indigenous medicine shared with them by Domagaya, son of Donnacona, the Iroquois chief with whom they had commerce. Stunned by the power of this therapeutic plant, *Annedda*, Jacques Cartier decided to return to France with it and to arouse the king’s interest. This endeavour failed and, in less than a generation, the plant became unidentifiable in the king’s garden of Fontainebleau. Far from adopting an indigenous perspective on plants and medicine, the French captain viewed the plant as a commodity with economic value. Likewise, the Canadian forest in which *Annedda* grew was seen less as an ecosystem and more as a reservoir of future profits.

In this paper, I will demonstrate how the attempt to control the circulation of *Annedda* – in order to commercialise and capitalise on it – prevented it from being seen as a symbol of Iroquois culture and instead led to the appropriation of it later in the literature of New France. A study of the enunciative structure of the travel narratives of the 16th and early 17th centuries reveals a Eurocentric vision of the dynamics of knowledge exchange across the Atlantic. In order to investigate the character of the relationship and cultural exchange that took place, I will first consider the sharing of this pharmaceutical knowledge from the standpoint of the gift economy. From the point of view of the First Nations, the gift economy was central to the relationship between the settlers and the natives. I will

then propose to study Jacques Cartier's desire to commercialise the plant in terms of the European spirit of colonisation and conquest. Finally, I will analyse how references – or the lack of them – to this plant in literature from the time can be understood as part of an implicit ideological understanding – either positive or negative – of New France in the 17th century.

After a long exploration of the Saint-Laurence River all the way to Hochelaga, located in what is now Montreal, Cartier settled in the harbour of the Saint Charles River, near the Iroquois village of Stadaconé, on the future site of Quebec City. Upon arrival in November 1535, the captain and his crew became trapped by ice. So, they resolved to build a camp and remain there for the winter. Their relationship with the nearby Iroquois population had soured since the French had gone to Hochelaga earlier in the summer, against the advice of the chief, Donnacona, and his two sons, Taignoagny and Domagaya. The sudden onset of an unknown disease added an additional source of anxiety for Cartier and his men, who worried about being in a weak position with respect to the native inhabitants. They soon learned, however, that this population was also affected by the disease: "In the month of December, wee understood that the pestilence was come among the people of Stadacona, in such sort, that before we knew of it, according to their confession, there were dead about 50."¹ The illness threatened to be fatal to both the Iroquois and the French. Within a few weeks, many members of Cartier's crew had died and the remaining personnel were unable to maintain the organisation of the camp. Food supply became problematic, guard duties went unfulfilled and the presence of corpses created a problem of hygiene.² While Cartier saw his men succumb to the illness and die, he realised that the disease was not fatal to the Iroquois:

Our Capitaine considering our estate (and how that sicknesse was encreased and hot amongst us) one day went forth of the Forte, and walking upon the yce, hee saw a troupe of those Countreymen comming from Stadacona, among which was Domagaia, who not passing ten or twelve dayes afore, had bene very sicke with that disease, and had his knees swolne as bigge as a childe of two yeres old, all his sinews shrunke together, his teeth spoyled, his gummess rotten, and stinking.³

Wandering beyond the camp to escape the morbid atmosphere, Cartier saw Domagaya completely recovered, exhibiting no visible symptoms of his former illness. The sense of sight plays a central role here, and it underlies the opposition between the past and the present. The French captain relied on his immediate observations both in noting Domagaya's illness a few

weeks prior and in now judging him to have recovered. This view was so striking that it convinced him to renew contact with the Iroquois:

Our Captaine seeing him whole and sound, was thereat marvellous glad, hoping to understand and know of him how he had healed himselfe, to the end he might ease and help his men. So soone as they were come neere him, he asked Domagaia how he had done to heale himselfe: he answered, that he had taken the juice and sappe of the leaves of a certain Tree, and therewith had healed himselfe: For it is a singular remedy against that disease.⁴

Domagaya, who was before portrayed as a manipulator or a liar, is now depicted as learned and helpful. He appears to respond to Cartier’s inquiry, communicating the details of his recovery. In fact, it seems that Domagaya first approached Cartier to inform him about the remedy. The French captain had kept his distance from the Iroquois and waited for Domagaya to approach. Domagaya does so, sharing the recipe for the medicine, without any barter or negotiation, according to Cartier. Domagaya then sends women with Cartier to gather the needed supplies:

Then our Captaine asked of him if any were to be had thereabout, desiring him to shew him, for to heale a servant of his, who whilest he was in Canada with Donnacona, was stricken with that disease: That he did because he would not shew the number of his sicke men. Domagaia straight sent two women to fetch some of it, which brought ten or twelve branches of it, and therewithall shewed the way how to use it, and that is thus, to take the barke and leaves of the sayd tree, and boile them together, then to drinke of the sayd decoction every other day, and to put the dregs of it upon his legs that is sicke: moreover, they told us, that the vertue of that tree was, to heale any other disease: the tree is in their language called Annedea or Hanneda.⁵

The downplaying of the illness in the narration to the single case of an anonymous subordinate reveals how the French tried to minimise the seriousness of the malady, and instead present themselves as strong and resilient. Domagaya seems to have immediately shared his knowledge and is depicted as revealing the ingredients, the composition and the posology of the cure, as well as offering assistance in preparing it.

I want to analyse the representation of the meeting between the French and the Iroquois narrated from the European point of view, which betrays a certain amount of fear, followed by a demonstrated confidence. Omitting mention of any negotiation, Cartier attempts to convey to his readers his authority and control over the situation. Even if half of his men are dead or

on the verge of death, he depicts himself receiving information and support from the First Nations without supplication. Furthermore, he is ignorant of the gift economy at play in Iroquois society, later studied in depth by anthropologists in the 20th century. According to Marcel Mauss, the gift is a codified form of exchange, which engages the debtor as well as the creditor.⁶ Not understanding that he has inaugurated a relationship of giving with the First Nations, Cartier depicts himself as having had the upper hand in a profitable exchange. He is unaware that he has become a debtor and that his authority may have been subject to mockery. Moreover, having been sent along with the women to gather the supplies, Cartier has been sent on a ‘woman’s errand’, indicative of his now diminished status.⁷ This perspective leads us to nuance the narrator’s description of his apparent superiority and control of the situation. The European point of view is clearly visible in the progressive disappearance of the First Nations from the narrative. At first, the two women are grammatically active subjects; then, they become intermediaries between the Iroquois pharmacopoeia and the French; and finally, their own voices – “in their language” – are merged into the narrator’s. In the original version in French, the typographic distinction of the name *Annedda* – italicised – crystallised the way in which a reality is registered in a travel account. The tree is reduced to its name, which operates for the reader both as a realistic and exotic detail.

In any case, thanks to this gift, the captain is able to save some of his crew:

Our Captaine presently caused some of that drink to be made for his men to drink of it, but there was none durst tast of it, except one or two, who ventured the drinking of it, only to tast and prove it; the other seeing that did the like, and presently recovered their health, and were delivered of that sickenes, and what other disease soever, in such sorte, that there were some had bene diseased and troubled with the French Pockes foure or five yeres, and with this drinke were cleane healed.⁸

The repetition of the adverb “presently” indicates the captain’s sense of urgency. He is eager to try to save his men with this medicine and indeed the elixir reveals itself to be very efficient. It cures not only their current affliction – scurvy – but also diseases they had previously dealt with, like smallpox. The power of the concoction is attested to in the contrast between the crew members’ initial scepticism and their later appreciation of the medicine’s salubrious effects. The remedy far exceeds the expectations of the few brave men who first tested it. However, ignorant of the workings of the gift economy, Cartier breaks the cycle of gift and receipt. Far from recognising his indebtedness to the Iroquois, he forgets

who gave him the recipe and instead attributes his possession of the cure to a divine source:

After this medicine was found and proved to be true, there was such strife about it, who should be first to take it, that they were ready to kill one another, so that a tree as big as any Oake in France was spoiled and lopped bare, and occupied all in five or sixe daies, and it wrought so wel, that if all the phisicians of Mountpelier and Louvaine had bene there with all the drugs of Alexandria, they would not have done so much in one yere, as that tree did in sixe dayes, for it did so prevail, that as many as used of it, by the grace of God recovered their health.⁹

This passage, written as a dramatic climax to the story, is structured by the repeated use of hyperbole. The tree seems to be the biggest ever seen, the medicine is better than that produced by any medical school, and the essential ingredient is rarer and more potent than other exotic substances from Alexandria. The narrator evokes all the known medical references of his European reader in order to boast the superiority of the Iroquois medicine. But, by the end of this glowing paragraph, the Iroquois origin of the gift has been forgotten and Cartier’s gratitude is directed towards the Christian God. More than the non-recognition of a debt, the *Annedda* example illustrates how the dynamics of colonisation resulted in the displacement of a cultural reality from one society to another.

Following his return to France, Cartier had to convince the king to continue financing the former’s colonial expeditions. One way to make these territories attractive to the king was to depict them as rich in valuable minerals, other precious raw materials, or trade opportunities. As the Mayan’s gold had become legendary, Francis I was looking for equivalent riches in North America. To support his travel narrative, Cartier returned to France with samples of the natural resources he had discovered: pieces of minerals, cuttings of different plants and animal pelts. However, the precious minerals brought back from the first expedition turned out to be rocks without any value and, a few years later, Francis I focused his attention on his military struggles in Spain, forgetting about New France. Despite this royal disinterest, Cartier returned to Canada and sought to secure his future claims. Victoria Dickenson reminds us that for his second journey, Cartier added “two apothecaries [to his crew] each with an assistant, to identify plants and determine their use”.¹⁰ This inclusion highlights his effort to obtain a scientific understanding of his samples and especially of his botanical samples, which he continued to promote in his subsequent writings. Significantly, in the few preserved pages from the third expedition, from 1541 to 1542, Cartier spoke of *Annedda* before

mentioning any of the other trees:

On both sides of the said River there are very good and faire grounds, full of as faire and mightie trees as any be in the world, and divers sorts, which are about three fathoms higher then the rest, and there is one kind of tree about three fathoms about, which they in the Countrey call Hanneda, which hath the most excellent vertue of all the trees in the world, whereof I will make mention hereafter. Moreouer there are great store of Okes the most excellent that ever I saw in my life, which were so laden with Mast that they cracked againe: besides this there are fairer Arables, Cedars, Beeches, and other trees, then grow in France.¹¹

The desire to spark interest in this plant is reflected in this account. The *Annedda* seems to take precedence over the oak, in so far as its abundance and availability are concerned. It symbolises the reason why Francis I should continue to support Cartier's expedition. The hyperbolic description highlights the plant's curative power and a more detailed presentation is postponed. This stylistic choice creates for the reader both an echo of Cartier's former narrative and a desire to learn more about this supposedly miraculous plant. Unfortunately, the rest of the text from the third voyage has been lost, leaving us no further details about the *Annedda*.

The captain's description is short on specifics. This seems to be owing to his desire to keep the benefits of his discoveries to himself, as reported by some of his competitors, in particular Jean-François de la Roque de Roberval. Lydia Querrec, Réginald Auger and Louise Filion note that the king appointed Roberval Vice-Lieutenant of Canada, in charge of colonising Canada.¹² In the few historical sources related to Roberval's expedition,¹³ the latter refers to his relationships with Cartier and his crew in terms of mistrust, rivalry and mischief:

Hee and his company, moved as it seemeth with ambition, because they would have all the glory of the discoverie of those partes themselves, stole privily away the next night from us, and without taking their leaves departed home for Bretaine.¹⁴

The causal connector "because" reveals the logic underlying the narrative's hypothesis: Cartier left as a corsair in the middle of the night, driven by his thirst of glory. Fleeing rather than simply leaving, he keeps to himself any information acquired during his former expedition. A few months later, a new epidemic arises among Roberval's men:

In the ende many of our people fell sicke of a certaine disease in their legges, reynes, and stomacke, so that they seemed to bee deprived of all

their lymmes, and there dyed thereof about fiftie.¹⁵

The narrator never points out the similarity of these symptoms with the epidemic that decimated Cartier’s ranks a few years earlier, which suggests that the author of this text was unaware of Cartier’s writings. For a reader of both accounts, however, the two episodes are easily linked together. Jacques Mathieu affirms that the interruption of the transmission of this knowledge is due to bad luck. According to him, the initial circumstances were favourable to the sharing of information between Cartier and Roberval. Mathieu reminds us that Jean Alfonse, the Portuguese pilot who guided Roberval to Quebec, had heard about *Annedda*. He referred to these plants as “the trees of life that carry medicine”¹⁶ but he had unfortunately left Quebec before the winter. Mentioning the existence of the tree does not mean, however, that he had any real knowledge about it or that he would be able to identify it. The use of this Christian periphrasis seems to suggest that he had only heard about it through rumour or legend.

One of my aims here is to qualify any idealistic vision of knowledge sharing among the European colonisers. Cartier’s silence can be connected to his ambition. He knew of the wealth and the glory gained by the Portuguese and Spanish colonial expeditions throughout South America. The *Annedda* – having a positive global effect on the body’s health, or being a remedy at least for scurvy and smallpox – appeared to him as an asset that could bring him similar wealth and acclaim. But this expected success would never be realised. The mineral samples brought back from his third trip were again of no value and there was little support for the project of a Canadian colony. As the war with Spain occupied the king, no one was interested in Cartier’s discoveries and he withdrew to Brittany until his death.

Considering the historical period of Modernity and colonisation, indigenous plants and medicine should be considered through their economic value on the European market. Medical knowledge had been undergoing a transition throughout the 16th and 17th centuries, from the Greek tradition of Hippocrates and Galen to an experimental model, based on observation and dissection. The works of Ambroise Paré in France and of Andre Vesalius in Italy are evidence of the profound reconsideration of ancient sources occurring at the time. The European discovery of other new medicinal ingredients such as guaiac and quinine, brought back from South America by the Portuguese and the Spanish, also influenced great changes in Western medical thought. Samir Boumédiène, in *La Colonisation*

du Savoir, une histoire des plantes médicinales du 'Nouveau Monde' (1492–1750) [*The Colonization of Knowledge: A History of Medicinal Plants of the 'New World' (1492–1750)*] focuses on the systematic collection of pharmacological knowledge in South America. Boumédiene notes that while medicines of the new world were used to defend against diseases in Europe, the colonisers at the same time prohibited and censored ritual and sacred uses of these same plants in South America. Boumédiene's analyses of the progressive commercialisation of certain roots and types of bark are useful here, as they underline the entanglement of the pertinent monetary and cultural issues. As the French monarchy lacked interest in Canada's colonisation, both of these dimensions were ignored and the *Annedda* never met with the same success as the South American guaiac plant that had proved so profitable to its European discoverers. Moreover, Boumédiene highlights the domination of South American cures in the European market. We can see Cartier's failure by comparing his story to the history of the introduction of guaiac to Europe. A single plant was able to have an enormous impact on European geopolitics, and transformed the diplomatic and military relationships of the Iberian Peninsula with the rest of the world in a long-term way:

In the middle of the sixteenth century, [if] guaiac [...] penetrated so much into the daily life of Europeans, it is not only because it became a medicine, a political instrument, an object of study and a source of profit, but above all because it caused conflicts and redefined power relations.¹⁷

The spread of guaiac in the therapeutic market served as a model for what Cartier would have liked to accomplish with the commercialisation of the *Annedda*, but his report on this plant was never taken into consideration from either an economic or cultural point of view. Cartier's description might have been too hyperbolic, and if there were apothecaries on board, it does not seem that their voices had any weight. The *Annedda* did not have the same importance as guaiac. On the contrary, Europeans quickly lost the ability to identify the plant and it only survived as a myth. Nevertheless, the *Annedda*'s journey across the ocean has led to both a symbolic and scriptural cultural appropriation.

The object itself crossed the ocean but the knowledge attached to it was not successfully transplanted. Mathieu explains that the plant was planted in the garden of Fontainebleau without any registration:

We learned only later and indirectly that a tree coming from Canada and named Tree of Life was offered to King Francis I and transplanted in his gardens at Fontainebleau, after Cartier's second voyage.¹⁸

This second-hand source does not come from the castle’s administration but from Pierre Bellon, a French naturalist interested in the exotic plants coming from other continents. In his treaty *De arboribus coniferis* (1555), there is, at the entry of the “*Pinaster*”, a description that Mathieu has linked to the *Annedda*:

There is also a Maritime Pine in the gardens of the Royal Château of Fontainebleau, which grew from a seed and was called the “second tree of life” (*altera arbor vitae*). [...] I know that someone, after a trip to the New World, brought back among his goods many crates full of this wood which he called “wood of life” (*lignum vitae*); although it was maritime pine wood and belonged to King Francis, who is above us all, this individual did not blush at committing a deception with that name. There is then nothing astonishing that he was able to deceive the doctors, people without mistrust, very learned people by the way: from the beginning, they did not smell the impostor’s trick [...] As many had experienced the damage to their great detriment, it was decided by general opinion to abandon its use, as had recently been done with the *Chinna*.¹⁹

What authorised Mathieu to say that Bellon was speaking of the *Annedda* in this excerpt is the mention of the geographic origin and the description, so similar to Cartier’s.²⁰ But from the naturalist’s point of view, the indigenous name *Annedda* need not to be mentioned. Bellon also seems to be trying to erase the name of the first holder of the plant, by only referring to him anonymously (“someone”, “this individual”) at first and then dismissing him as an “impostor”. He wants to undermine any possible authority that Cartier had, which can be understood through the prism of the “epistemological gap, an epistemological gap that seems to separate travellers from naturalists”.²¹ In this excerpt, the captain appears to be a professional fraud, unconcerned by any life-threatening consequences of his deceptions. While attacking Cartier’s credibility, Bellon also calls into question indigenous medical knowledge. He unscientifically advocates stopping all therapeutic uses of this plant and his warning is more successful than Cartier’s promotion of the plant. The tree in the garden of Fontainebleau has since been considered to be of merely aesthetic value.

On the one hand, Francis I did not show any interest in the therapeutic uses of this discovery, but, on the other hand, scientists focused their energy on discrediting and erasing the figure of Cartier. As Samir Boumédiène reminds us, “a remedy passes through the body of the monarch before curing that of his subjects. Through him, a behaviour becomes fixed, generalized”.²² For the *Annedda*, the king’s lack of

consideration essentially blocked access to this new medicine for the rest of the population, and Jacques Cartier's dream of wealth and glory were buried at the same time. Dickenson eloquently sums up the rapid disappearance of this medical knowledge: "By the time, however, that Charles de l'Écluse (Carolus Clusius) wrote about *Arbor vitae* in his *Rariorum plantarum historia*, first published in 1579, its pharmacological properties seem to have been forgotten."²³ Despite this loss, rare references to *Annedda* and a certain "tree of life" continue to appear in travel stories of the early 17th century.

Notwithstanding the bad reputation Bellon helped to give Cartier, the first European holder of the plant, some 17th-century travellers continued to read and rely on Cartier's accounts, leading to a scriptural and symbolic appropriation. Far from being simply an economic issue, "the appropriation can [also] be understood through a proliferation of glosses"²⁴ according to Holtz. By looking at the literary posterity of this plant, one can witness a phenomenon of rewriting as the authors of the 17th century no longer testify from direct experience but mention it in historical commentaries and travel accounts. The failure of the scientific appropriation of *Annedda* does not lead to its disappearance but to the transformation of the symbolic imagery that surrounds it – no longer one of material wealth, but one of divine presence in New France.

Marc Lescarbot, a secular advocate, mentions the *Annedda* tree several times in his *History of New-France*, first published in 1609 and reissued three times over the following decade. In it, he uses the only textual representation of *Annedda* that he had access to in order to construct a positive representation of New France. In the third book, Lescarbot inserts the texts of Jacques Cartier's first and second expeditions, with notes in the margin. One can find "Remedy against aforementioned illness"²⁵ and "*Annedda* [sic], trees of admirable virtues"²⁶ among the headline notes. By using these notes as milestone markers in his historical summary, Lescarbot reaffirms the importance of this plant in the overall economy of Cartier's trip. In the fourth and sixth books, Lescarbot refers to the plant again, but points out that the people of the First Nations who currently live in New France do not know about it: "As to the *Annedda* tree referred to in said Quartier [Cartier], the Indians of the said lands do not know of it."²⁷ Later in his historical narration, he writes:

As for the *Annedda* tree so much celebrated by Jacques Quartier, it is no longer found today. The said Champlein made a diligent search of it and did not find any new information. However, the house is in Kebec, near

the place where the said Quartier wintered. I cannot think of anything else, except that the people of that time were exterminated by the Iroquois, or their enemies. For to deny this Quartier, as some do, is not in my mood, not being able to believe that he would have had the impudence to present the report of his voyage to the King otherwise than truthfully.²⁸

Whether Champlain used this story to undermine Cartier’s authenticity is not made explicit, but Lescarbot immediately takes a position in this debate and assures us of his confidence in his predecessor. He emphasises the dependent relationship between the former captain and the king more than once, and adds further in his text: “I prefer to contribute to the cause of the change of peoples through the wars that are being waged, rather than to accuse this Quartier of lying, since that would be of no use to him.”²⁹ His hypothesis, which at first glance seems intended to demonstrate the honesty of Cartier, turns out to be close to historical reality. According to the anthropologist Bruce Trigger, “The most important historical event that marked eastern Canada after Cartier’s voyages was the disappearance of the St. Lawrence Iroquois. Unfortunately the documents of the 16th century remain silent on this subject.”³⁰ Because of this silence of European sources, historians and archaeologists are still studying the precise causes of the disappearance of the Lower St. Lawrence Iroquois.³¹ In noting this disappearance and demographic change, however, Lescarbot recalls the social and cultural dimensions of knowledge, especially concerning medical knowledge. Boumédiène points out how the South American plants were studied not only to be commercialised in Europe, but also to control their sacred uses in South America. As the Lower St. Lawrence Iroquois disappeared before the 17th century, the French settlers did not study any cultural and religious dimensions of these practices, as the Spanish and Portuguese missionaries did in South America. Rather, European cultural references were used to think about North American medicine and to frame the knowledge borrowed from the Iroquois.

Lescarbot repeatedly mentions the existence of the *Annedda*. It even has a significant place since it is in the final position in the enumeration of remedies in Chapter VI of Book IV:

For a last & sovereign remedy, I send the patient back to the tree of life (because that’s how it can be qualified), which Jacques Quartier above calls *Annedda*, not yet known in the coast of the Port Royal.³²

Different speeches are entwined but are not supported in the same way by the narrator. The indigenous name is still mentioned but only in reference to Cartier’s use of the term, since Lescarbot himself preferred to use the

periphrasis “tree of life”³³ both in the text and in the headline. He used the expression that had been coined by Alfonse 50 years earlier, which crystallised the displacement of the plant from one cultural reality to another. The nominal transformation stood for the whole process of appropriation. As soon as the name *Annedda* no longer referred to any real plant for the Europeans, they allowed themselves to refer to the plant of Cartier’s stories with the Christian periphrasis. The expression “tree of life” resonated for a reader of the 17th century as an echo of the biblical Tree of Life. Bellon referred to it in his notice as the “second tree of life”,³⁴ as a reminder of the hierarchy between Heaven and Earth. Moreover, this expression projected a certain aura both on the plant and on the country in which it grew. On the one hand, it emphasised the miraculous dimension of the plant and, on the other, it described New France as another Paradise. Both of these elements were effective, in their own way. Through these words, Alfonse established the Edenic aura that surrounded the tree and the representation was confirmed in the writing of Lescarbot. In the *History of New-France*, cultural reappropriation of the *Annedda* coincided with the rewriting of Cartier’s initial experience, which led to a new, positive description of the territories of New France, characterised as the Christian land of the future, in opposition to Jesuit narratives.

The *Annedda* is not the only plant mentioned by Lescarbot, and the specific cultural displacement we have studied must be inscribed in the more general poetic of the author’s description of the landscape. Just before his account of arriving at Port-Royal and a few pages before mentioning *Annedda*, he describes the flora of Port au Mouton in these terms:

We noticed there among a sandy ground a lot of oak trees, glans door, cypresses, fir trees, laurels, nutmeg roses, grozelles, purslane, raspberries, ferns, lysimachia, species of scammonée, *calamus odoratus*, Angeliques and other Simples in two hours that we were there: And brought back in our ship quantity of wild peas that we found good. They grow on the shores of the sea, which cover them twice a day.³⁵

Nature is depicted in a colourful image, with red and pink dots, whether it is through the description of flowers or of fruits. Lescarbot points out that it only takes two hours to figure out all these magnificent details. The beautiful scene is also fragrant, as the Latin name “*calamus odoratus*” suggests, and appeals to the sense of taste as well, with the evocation of berries and peas, later eaten by the crew. This location is particularly favoured by nature and by the twice-daily tide. One is struck by the effort of narrative composition to describe the natural land as a sort of garden,

organised to delight both the eyes and the nose. The convocation of multiple senses (sight, taste and sense of smell) to describe this *tableau* is completed by the reader’s imagination, giving the impression that Lescarbot has found an earthly paradise. This fantasy of abundance and luxuriance is also present in one of the last chapters of Lescarbot’s *History*, entitled “Of the Earth”.³⁶ Here, the earth is portrayed metaphorically as a nurturing mother, a fertile soil for both agriculture and architecture. North American potting soils are described at length, and all the plants that the First Nations and the settlers grew are discussed in some 30 pages. Among them, the *Annedda* is mentioned again but only as being notably absent: “True is that about the tree *Annedda* by us celebrated on the said report of the said Quartier it is no longer found nowadays”.³⁷ Both the therapeutic and aesthetic dimensions of the plant are ignored, as it is linked to an ancient world. The *Annedda* has become a sign for a lost totality, the trace of a former paradise.

Lescarbot offers an Edenic picture of New France that contrasts sharply with the representation of this same nature in the following travel accounts, especially with that of the Jesuits. Two types of perspective – one positive and one negative – seem to be in opposition in the first half of the 17th century. This antinomy can be explained in part by the rivalry between different parties for the colonisation and evangelisation of New France. Éric Thierry analyses part of the Jesuit Pierre Biard’s *Relation*, published in 1616, as a polemic answer to the *History of New-France* by Lescarbot, first published in 1609. The critic focuses on the different points of view, which he eloquently sums up as follows: “While for Marc Lescarbot, New France is already a land blessed by the Creator, it is still, in the eyes of Father Biard, the domain of Satan.”³⁸ The *Annedda* tree is an element of the paradisiac reference of Lescarbot’s description and characterisation of this land, and this perspective helps us to understand the omission of the plant by the Jesuits’ sources throughout the 17th century. Marie-Christine Pioffet strives to differentiate the Jesuits’ corpus on New France in North America from the accounts of other Jesuit evangelising missions in Central and South America. She points out the absence of the Edenic trope: “[W]e will search in vain through the meshes of their stories for the seeds of a mythical Eldorado, so common in the writings of the New World”.³⁹ According to her, the representation of the Canadian territories in the Jesuits’ texts is divided between two poles, which she calls “*terra doloris*” and “*Jérusalem cèleste*”. She interprets the amplification of the “*terra doloris*” as part of Jesuit rhetoric. As long as the inhabitants are not Christianised, the land is described as savage, hostile and poor in resources. The reference, or lack thereof, to the so-

called miraculous plant becomes part of a broader ideological discourse about the North American reality before the arrival of the European settlers. Obliterating the miraculous plant that is the *Annedda* enables the Jesuits Pierre Biard, Paul Lejeune, Jean de Brébeuf and Jérôme Lalemant to keep their distance from the Edenic atmosphere sketched by Lescarbot.

The last missionary from the 17th century who paid attention to this plant and mentioned it in his text is, in fact, a Recollet brother, Gabriel Sagard. The Recollet order was ousted from Canada by the French royal authority in favour of the Jesuits in 1632, when the French regained possession of lands that the English had invaded and subdued. When he published his *Grand Voyage au Pays des Hurons* in 1632, Sagard wanted to justify the former presence of the Recollets. To this end, throughout the narration of the winter he spent on site in 1623–1624, he inserted details that bore witness to his experience, as well as to his erudition. In a chapter about health and diseases among the First Nations and their cure, we can read:

It is also said that our Montagnets & Canadians have a tree called Annedda, of admirable virtue; they plunder the bark & the leaves of this tree, then boil the whole thing in water, & drink it from two days one, & put the grounds on the swollen & sick legs, & find themselves well cured, like all other kinds of internal & external diseases.⁴⁰

This passage is an obvious rewriting of Cartier's travel narrative. It cites every detail reported by the French captain, from the preparation of the medicine derived from the plant, to the dosage to be taken in the case of illness. This is presented from a utilitarian point of view, with an eye only on the medicinal advantages. Sagard thus retranscribes accurately how Cartier viewed the plant, seeing it not as part of a broader culture but as a simple resource. Nevertheless, Sagard maintains a clear distance from this past approach. He uses an impersonal structure, and what he quotes could be both somewhat true and somewhat fictional. In the text, it sounds like the echo of an old legend, a fabulous tale of an unexpected healing power, but one that the narrator has chosen to share with his reader and which implies natural richness. Written in the same year as the first public Jesuit *Travel Relations*, Sagard's text offers a description of a land with resources used by the indigenous people. But, from the year 1632 onwards, the reality of the *Annedda* itself fades away at a terrific speed. The next generations of missionaries, settlers and traders seem to have forgotten everything about it and never mention it again. The Jesuits' *Travel Relations*, at first a letter sent to the missionaries' superior in France, were then published every year between 1632 and 1672, but none of them mention the *Annedda*. Throughout the century, the Jesuits' harsh

representation of an austere and hostile environment seems to have dominated the European idea of New France. The influence of this point of view erased the more positive perspective proposed by earlier lay-voyagers and the first Recollets. European sources remained silent about this plant for more than a century, until a physician, Jame Lind, became interested in it again in the middle of the 18th century. Since then, it has been studied from a technical perspective and attempts have been made to identify it with certainty, but the economic aspect of the initial gift has not been taken into consideration⁴¹ and the cultural dimension of the preparation and uses of this plant seems to be definitively lost.

Contemporary exchanges among researchers about the *Annedda* focus on regaining a lost identification and little interest has been shown in recovering other kinds of knowledge about the plant. To reassemble the cultural practices, whether symbolic or practical, that surrounded the plant appears to be impossible, given the resources available to us on the subject. Cartier, the only witness to have put his first-hand experience in writing, is heavily influenced in his account by his desire to project a self-image as virile and dominant. This leads to him remaining ignorant of the gift economy at play within the Iroquois society, and his attitude leads to him entirely missing out on an opportunity to learn about the cultural value of this plant to the Iroquois. Viewed as a commercial product given by the Christian God to the settlers, the *Annedda* is then disconnected from its social and cultural dimensions, and medical knowledge related to the plant is irretrievably lost. Renamed the “tree of life” and evoked in lush descriptions of Canadian flora, the *Annedda* came to be seen through the Christian worldview, completing the process of erasing its indigenous roots. The plant continued to be overlooked by the entire Jesuit *Travel Relations*. From 1632 to 1672, they forged a negative representation of North American territories and the lack of reference to *Annedda* has to be understood in reference to this ideological orientation. If this plant was, first, a vector of meeting between the French and the Iroquois, it never became a cultural ambassador for the latter. On the contrary, its onomastic and narrative treatment eloquently illustrates the obliteration of one culture and the reintegration of its elements into another one.

Notes

¹ Richard Hakluyt, *The Principal Navigations, Voyages, Traffiques and Discoveries of the English Nation — Volume 13 America, Part II*, ed. by Edmund Goldsmid, 2008, 159, <http://www.gutenberg.org/ebooks/25645>. Original quote: “*Au mois de decembre fumes advertyz que la mortalité s'estoit mise audict peuple de Stadaconé*”

tellement que jà en estoient mors par leur confession plus de cinquente,” Jacques Cartier, *Voyages au Canada: suivis du voyage de Roberval: texte intégral*, Collection Mémoire des Amériques (Montréal, Québec: Comeau & Nadeau, 2000), 104.

² The issue of health was so serious that the captain ordered a dissection, in order to try to understand the disease, even if it was an act condemned by the Church at that time.

³ Hakluyt, *The Principal Navigations, Voyages, Traffiques and Discoveries of the English Nation — Volume 13 America, Part II*, 154. Original quote: “*Ung jour notre cappitaine voyant la maladie si esmue et ses gens si fort esprins d’icelle estant sorty hors du parc et soy pourmenant sus la glace apersut venir une bande de gens de Stadaconé à laquelle estoit Domagaya lequel le cappitaine avoyt veu puy dix ou douze jours fort malade de la propre maladie que avoyent ses gens. Car il avoyt l’une des jambes par le genoil aussi grosse qu’un enfant de deux ans et tous les nerfz d’icelle retirez les dents perdues et gastees et les gensives pourries et infectes,”* Cartier, *Voyages au Canada*, 108-9.

⁴ Hakluyt, *The Principal Navigations, Voyages, Traffiques and Discoveries of the English Nation — Volume 13 America, Part II*, 154. Original quote: “*Le cappitaine voyant ledict Domagaya sain et deslibéré fut joieux esperant par lui savoyr comment il s’estoit guery affin de donner aide et secours à ses gens. Et lorsqu’ilz furent arrivez pres le fort le cappitaine lui demanda comme il s’estoit guery de sa maladie. Lequel Domagaya respondit que acecq le juz et le marcq des feulhes d’un arbre, il s’estoit guery et que c’estoit le singulier remede pour maladie,”* Cartier, *Voyages au Canada*, 108-9.

⁵ Hakluyt, *The Principal Navigations, Voyages, Traffiques and Discoveries of the English Nation — Volume 13 America, Part II*, 154. Original quote: “*Lors ledict cappitaine lui s’il y en avoit poinct là entour et qu’il luy monstrast pour guerir son serviteur qui avoyt print la maladie audit Canada durant qu’il demouroit avecq Donnacona ne luy voulant declarer le nombre des compaignons qui estoient malades. Lors ledit Domagaya envoya deux femmes avecq le cappitaine pour en querir lesquels en apportèrent neuf ou dix rameaux et nous monstrerent comment il falloit piller l’escroce et les feulhes dudicts boys et mettre tout à bouillir en eaue puis en boyre de deux jours l’un et mepre le marcq sus les jambes enfleez et malades et que de toutes maladies ledict arbre guerissoit. Ilz appellent ledit arbre en leur langaige annedda,”* Cartier, *Voyages au Canada*, 109.

⁶ I use the terms “debtor” and “creditor” as an image, frequently used by anthropologists and sociologists, but we have to remember that the second gift does not close the exchange inaugurated by the first one; they take place in vast gift chains, which structured the relationships among members of the same society. For a more detailed explanation of this metaphor, cf. Nicolas Olivier, « Marcel Mauss, Essai sur le don. Forme et raison de l’échange dans les sociétés archaïques ». *Lectures*, 6 février 2008. <http://journals.openedition.org/lectures/520>.

⁷ Denys Delâge, an historian specialising in New France’s history, underlines the importance and the rigidity of sexual division of work among the indigenous society; see Denys Delâge, *Le pays renversé, Amérindiens et Européens en Amérique du Nord-Est, 1600–1664* (Montréal: Boréal Express, 1985). In his more

recent works, he focuses on this episode as one of many examples of the global misunderstanding of the economy of the First Nations: Cartier is unaware that he is doing a task usually assigned to women and that he is in a debtor's stance in relation to the natives; see Denys Delâge, *Le piège de la liberté: les peuples autochtones dans l'engrenage des régimes coloniaux* (Montréal, Québec: Boréal, 2017).

⁸ Hakluyt, *The Principal Navigations, Voyages, Traffiques and Discoveries of the English Nation — Volume 13 America, Part II*, 154-55. Original quote: “Tost apres le cappitaine fist faire du breuvaige pour faire boire es malades desquelz n’y avoyt nul d’eulx qui voullust essaiguer ledict breuvaige sinon ung ou deux qui se myrent en adventure d’icelluy essaiguer. Tost apres qu’ilz en eurent beu ilz eurent l’adventaige qui se trouva estre ung vray et evydent miracle car de toutes maladies de quoi ilz estoient entachez apres en avoir beu deux ou troys foyz recouvrerent santé et garison tellement que tel y avoit desdits compaignons qui avoyt la grosse verolle puis cinq ou six ans auparavant ladictie maladie a esté par icelle medicine curé nectement,” Cartier, *Voyages au Canada*, 109-10.

⁹ Hakluyt, *The Principal Navigations, Voyages, Traffiques and Discoveries of the English Nation — Volume 13 America, Part II*, 155. Original quote: “Apré ce avoyr veu et congny y a eu telle presse sus ladictie medecin que on se vouloyt tuer à qui premier en auroyt de sorte que ung arbre aussi groz et aussi grand que je veidz jamais arbre a esté employé en moins de huit jours lequel a faict telle operation que si tous les medecins de Louvain et Montpellier y eussent esté avecq toutes les droggues d’Alexandrie ilz n’en eussent pas tant faict en ung an que ledict arbre en a faict en six jours. Car il nous a tellement prouffité que tous ceulx qui en ont voulu user ont recouvert santé et garison la grace à Dieu,” Cartier, *Voyages au Canada*, 110.

¹⁰ Victoria Dickenson, “Cartier, Champlain, and the Fruits of the New World: Botanical Exchange in the 16th and 17th Centuries,” *Scientia Canadensis* 31, no. 1-2, 23 January 2009, 35, <https://doi.org/10.7202/019753ar>.

¹¹ Hakluyt, *The Principal Navigations, Voyages, Traffiques and Discoveries of the English Nation — Volume 13 America, Part II*, 173. Original quote: “Des deux côtés de la rivière il y a de forts bonnes et belles terres, pleines d’aussi beaux et puissants arbres que l’on puisse voir au monde, et de diverses sortes, qui ont plus de dix brasses plus haut que les autres; et il y a une espèce d’arbre qui s’étend à plus de trois brasses, qui est appelé par les gens du pays Hannedda, lequel a plus excellente vertu de tous les arbres du monde, dont je ferai mention ci-après. De plus, il y a grande quantité de chênes les plus beaux que j’ai vu de ma vie, lesquels étaient tellement chargés de glands qu’il semblait qu’ils s’allaient rompre; en outre, il y a de plus beaux érables, cèdres, bouleaux et autres sortes d’arbres que l’on ne voit en France,” Cartier, *Voyages au Canada*, 134.

¹² Lydia Querrec, Réginald Auger, et Louise Filion, “Perceptions environnementales et description du paysage de la Nouvelle-France aux XVIIe et XVIIIe siècles,” *Le Naturaliste Canadien* 138, no. 1, 2014, 45-55, <https://doi.org/10.7202/1021042ar>.

¹³ From this expedition, we do not have any direct records and the citation is translated from a text published in London in 1600 by Richard Hakluyt. Hakluyt was an English diplomat based in Paris, who was fond of geography and travels.

One can guess that he had in his hands the original records of Roberval and that he translated them into English, but both of the manuscripts are now lost. Nevertheless, both the economic and symbolic rivalry between Cartier and Roverbal is tangible in the few pages that are still available.

¹⁴ Hakluyt, *The Principal Navigations, Voyages, Traffiques and Discoveries of the English Nation — Volume 13 America, Part II*, 190. Original quote: “;” Cartier, *Voyages au Canada*, 146-47.

¹⁵ Hakluyt, *The Principal Navigations, Voyages, Traffiques and Discoveries of the English Nation — Volume 13 America, Part II*, 192. Original quote: “À la fin, plusieurs de nos gens tombèrent malades d’une certaine maladie dans les jambes, les reins et l’estomac, de telle sorte qu’ils paraissaient avoir perdu l’usage de tous leurs membres, et il en mourut environ cinquante de la sorte,” Cartier, *Voyages au Canada*, 149.

¹⁶ Personal translation, original quote: “*les arbres de vye qui portent médecine*,” quoted by Jacques Mathieu, *L’Annedda, l’arbre de vie*, Septentrion, Les Cahiers du Septentrion, Québec, 2009, 47.

¹⁷ Personal translation, original quote: “*Au milieu du XVIe siècle, [si] le gaïac [...] a tant pénétré le quotidien des Européens, ce n’est pas seulement parce qu’il y est devenu un médicament, un instrument politique, un objet d’étude et une source de profit, mais surtout parce qu’il y a occasionné des conflits et redéfini des rapports de force*,” Samir Boumediene, *La colonisation du savoir: une histoire des plantes médicinales du ‘Nouveau Monde’ (1492–1750)*, Vaulx-en-Velin, Les Éditions des mondes à faire, 2016, 66.

¹⁸ Personal translation, original quote: “*On n’apprend que tardivement et d’une manière indirecte qu’un arbre en provenance du Canada que l’on nommait arbre de vie a été offert au roi François 1^{er} et transplanté dans ses jardins à Fontainebleau, après le deuxième voyage de Cartier*,” Mathieu, 52.

¹⁹ Personal translation, original quote: “*Il y a aussi un Pin maritime dans les jardins du château royal de Fontainebleau, qui a poussé à partir d’une semence et qui a été appelé ‘second arbre de vie’ (altera arbor vitae). [...] Je sais que quelqu’un, après un voyage au Nouveau-Monde, a rapporté parmi ses marchandises de nombreuses caisses pleines de ce bois qu’il appelait ‘bois de vie’ (lignum vitae); quoique cependant ce fût du bois de Pin maritime et qu’il appartint au Roi François, qui est au-dessus de nous tous, cet individu n’a pas rougi de commettre une supercherie avec ce nom. Il n’y a alors rien d’étonnant qu’il ait pu tromper les médecins, gens sans défiance, au demeurant très savants : dès le début, ils n’ont pas flairé la ruse de l’imposteur. [...] Comme beaucoup en avaient éprouvé les dommages à leur grand détriment, on décida de l’avis général d’en abandonner l’usage comme on le fit récemment pour la Chinna*,” Mathieu, 159-60.

²⁰ This affirmation takes place in a specialist debate between Jacques Mathieu and Berthier Plante, to name only the contemporary researchers most involved in the discussion, about the real identity of the *Annedda* tree. I quote this excerpt in order to think about the evocation of the medical properties of the plant, but do not take any position in this debate; I largely lack both the botanical and physiological skills to take a stand. For more details, see Mathieu, *L’Annedda, l’arbre de vie* and Berthier Plante, *L’annedda, l’histoire d’un arbre*, Québec: Société d’histoire

forestière du Québec, 2018.

²¹ Personal translation, original quote: “*fossé épistémologique qui semble éloigner les voyageurs des naturalistes*,” Holtz, Grégoire, “L’appropriation des plantes indiennes chez les naturaliste du XVIe siècle”, *Le théâtre de la curiosité*, Paris, Presse Universitaire Paris Sorbonne, 2008, p. 113.

²² Personal translation, original quote: “*un remède passe dans le corps du monarque avant de soigner celui de ses sujets. À travers lui, un comportement se fixe, se généralise*,” Boumediene, *La colonisation du savoir*, 230.

²³ Dickenson, “Cartier, Champlain, and the Fruits of the New World,” 36.

²⁴ Personal translation, original quote: “*se comprend à travers une prolifération de gloses*,” *art. cit.* p.121.

²⁵ Personal translation, original quote: “Remede contre la maladie susdite,” Marc Lescarbot, *Histoire de la Nouvelle France: contenant les navigations, découvertes, & habitations faites par les François és Indes Occidentales & Nouvelle-France... : en quoy est comprise l’histoire morale, naturele & géographique des provinces cy décrites... ; [suivie de Les muses de la Nouvelle France] (3e éd., enrichie de plusieurs choses singulières, outre la suite de l’histoire) Paris, Adrien Périer, 1617, 366, <https://gallica.bnf.fr/ark:/12148/bpt6k1095053>.*

²⁶ Personal translation, original quote: “*Annedda, arbres d’admirables vertus*,” Lescarbot, 367.

²⁷ Personal translation, original quote: “*quant à l’arbre Annedda duquel ledit Quartier fait mention, les Sauvages de ces terres ne le conoissent point*,” Lescarbot, 463.

²⁸ Personal translation, original quote: “*Quand à l’arbre Annedda tant célébré par Jacques Quartier, il ne se trouve plus aujourd’hui. Ledit Champlain en a fait diligente perquisition et n’en a sçeu avoir nouvelle. Et toutefois la demeure est à Kebec voisine du lieu où hiverna ledit Quartier. Surquoy je ne puis penser autre chose, sinon que les peuples d’alors ont été extremés par les Iroquois, ou autres leurs ennemis. Car de démentir icelui Quartier, comme quelques uns font, ce n’est point de mon humeur, n’étant pas croyable qu’il eût eu cette impudence de presenter le rapport de son voyage au Roy autrement que veritable*,” Lescarbot, 617.

²⁹ Personal translation, original quote: “*J’ayme mieux atribuer la cause au changement des peuples par les guerres qu’ilz se font, que d’argier de mensonge icelui Quartier, veu que cela ne lui pouvoit apporter aucune utilité*,” Lescarbot, 935.

³⁰ Personal translation, original quote: “*l’événement historique le plus important qui marqua l’est du Canada après les voyages de Cartier fut la disparition des Iroquoiens du Saint Laurent. Malheureusement les documents du XVIe siècle demeurent muets sur ce sujet*,” Bruce G. Trigger, *Les Indiens, la fourrure et les blancs: [Français et Amérindiens en Amérique du Nord]*, (Montréal: Boréal, 1992), 202.

³¹ In his recent work, Denys Delâge explains that there are three joint causes, according to current research, to understanding this brutal disappearance: “the climatic cooling would have driven out these farmers who lived at the northern limit of the maize-growing area; epidemics of European origin introduced by

contacts with European whalers and fishermen would have decimated the local populations; wars with other nations (including perhaps the Iroquois confederation) that sought to reach trade with European traffickers would have been fatal to them.” Personal translation, original quote: “*le refroidissement climatique aurait chassé ces agriculteurs qui habitaient à la limite septentrionale de la zone de culture du maïs ; les épidémies d’origine européenne introduites par les contacts avec des baleiniers et des pêcheurs européens auraient décimés les populations locales ; les guerres avec d’autres nations (dont peut-être la confédération iroquoise) qui cherchaient à atteindre le commerce avec des trafiquants européens leur auraient été fatales,*” Denys Delâge, *Le piège de la liberté*, 72.

³² Personal translation, original quote: “*Pour un dernier & souverain remède, ie renvoie le patient à l’arbre de vie (car ainsi le peut-on bien qualifier) lequel Jacques Quartier ci-dessus appelle Annedda non encore connu en la cote du Port Royal,*” Lescarbot, *Histoire de la Nouvelle France*, 480.

³³ Personal translation, original quote: “*arbre de vie,*” Lescarbot, 480.

³⁴ Personal translation, original quote: “*second arbre de vie,*” Mathieu, *L’Annedda, l’arbre de vie*, 159.

³⁵ Personal translation, original quote: “*Nous y remarquames parmi une terre sablonneuse force chênes, porte glans, cyprès, sapins, lauriers, roses muscades, grozelles, pourpier, framboises, fougères, lysimachia, espèce de scammonée, calamus odoratus, Angeliques et autres Simples en deux heures que nous y fumes: Et reportames en nôtre navire quantité de pois sauvages que nous trouvames bons. Ils croissent sur les rives de la mer, qui les couvrent deux fois le jour,*” Lescarbot, *Histoire de la Nouvelle France*, 536.

³⁶ Personal translation, original quote: “*De la Terre,*” Lescarbot, 922.

³⁷ Personal translation, original quote: “*Vray est que pour le regard de l’arbre Annedda par nous célébré sur ledit rapport dudit Quartier aujourd’hui il ne se trouve plus,*” Lescarbot, 935.

³⁸ Personal translation, original quote: “*Alors que pour Marc Lescarbot, la Nouvelle-France est déjà une terre bénie par le Créateur, elle est encore, aux yeux du père Biard, le domaine de Satan,*” Éric Thierry, *Marc Lescarbot (vers 1570–1641): un homme de plume au service de la Nouvelle-France*, (Paris: Classiques Garnier, 2019), 290.

³⁹ Personal translation, original quote: “*on cherchera en vain à travers les mailles de leur récits les germes d’un eldorado mythique, si courant dans les écrits du Nouveau Monde,*” Marie-Christine Pioffet, “*La Nouvelle-France dans l’imaginaire jésuite: terra doloris ou Jérusalem céleste?*” Intercultural Transfers Intellectual Disputes, and Textualities,” in *Jesuit Accounts of the Colonial Americas*, 2014, 331, <https://doi.org/10.3138/9781442663480-017>.

⁴⁰ Personal translation, original quote: “*On dict aussi que nos Montagnets & Canadiens ont un arbre appelle Annedda, d’une admirable vertu; ils pillent l’escorce & les feuilles de cet arbre, puis font bouillir le tout en eauë, & la boivent de deus jours l’un, & mettent le marc sur les jambes enflées & malades, & s’en trouvent bien tost guéris, comme de toutes autres sortes de maladies intérieures &*

extérieures,” Gabriel Sagard, *Le grand voyage du pays des Hurons*, Nouv. éd., Saint-Laurent, Québec, Bibliothèque québécoise, 2007, 272.

⁴¹ On the contrary, the term *Annedda* and its symbolic aura of healing have been used in marketing in the parapharmaceutical arena.

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MEDICINAL PLANTS AND THE MYTH OF THE MENNONITE SORCERER

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Introduction

In October 2015, a symposium was held at the University of Winnipeg on the topic of “Mennonites, Medicine and the Body: Health, Illness and Medical Research in the Past and Present”. It proposed to trace:

the rise and practice of modern medicine and medical research among Mennonites. It contrasts the shift from folk and herbal medicine to modern practice. It focuses on a profound shift in medical knowledge and its link to religious faith, ethics and cultural identity among Mennonites.¹

But why take an interest in the medical practices of a religious minority that represents only 1.47 million people in the world? The theme of this symposium links Mennonite culture and the practice of herbal medicine, so we can ask ourselves to what extent this practice is part of the identity of this religious minority. But first, who are the Mennonites? They are a religious minority that arose in Switzerland during the radical Reformation in the 16th century. They were called “Anabaptists” because, since they advocated adult baptism upon confession of faith, they were considered to be rebaptists and hence the term ‘anabaptist’ (rebaptiser). Around 1534, Menno Simons, a Friesian priest who adhered to Anabaptist ideas, gave the movement its theoretical foundations in his *Fundamentboek*. From then on and in order to distinguish themselves from a violent and revolutionary branch of Anabaptism, the Anabaptists called themselves “Mennonites” in reference to Menno Simons. Around 1693, a schism, led by Jacob Amann, took place in the Mennonite communities in Alsace (France). It is from this schism that the Amish movement was born². Today, about 81% of baptised believers are African, Asian or Latin American, and 19% are located in Europe and North America.³

As mentioned in the opening lines of this paper, the medical community has been interested in the knowledge and practices of Amish and Mennonites, both in the United States and in Europe. Another example is the article by Yuri Anna Lee and Lisa A. Ruth-Sahd in *The Journal of Lancaster General Hospital*, with the subtitle “An application of Folk Medicine in the Amish Community”,⁴ in which Lee parallels her knowledge of Asian herbs with that of an Amish patient. A further example is Nicolas Hutt’s medical doctoral dissertation⁵ on the use of herbs in Mennonite congregations in eastern France.

There are also many books that document Amish remedies, which are known for their medicinal virtues. The knowledge of these medicinal plants in the Amish and Mennonite communities is therefore known and recognised as part of the identity and culture of this religious minority. This interest is now placed in the more global context of a return to nature and an interest in ecology, an aspiration for a healthy life, but also at a time when pharmaceutical companies are regularly implicated in health scandals and the need to inoculate children with vaccines is being questioned.

However, the interest in Mennonites and their knowledge of herbs is much older still. In the 18th century, physiocrats were interested in the Mennonites’ agricultural success, and their skills in caring for people and livestock. An examination of the history of the Anabaptist movement will allow us, first, to understand who both the Mennonites and the Amish are, and also how and why knowledge of herbs has been so important that it has become part of their identity. Then, we will then look at the enigmatic figure that arose from this knowledge of herbs during the 18th and 19th centuries, namely that of the Mennonite healer, while illustrating our discussion with French examples from Alsace, the Vosges and Franche-Comté, and also looking across the Atlantic to the Amish communities.

The importance of herbs in Mennonite history

The influence of history...and geography

Originating in Zurich around 1525, Anabaptism is a minority religious movement that grew out of the Radical Reformation. Its followers opposed the reformer Zwingli⁶ on two main points:

- Baptism: For Anabaptists, it must be done on profession of faith. Thus, the baptism of children is unacceptable because it is a choice made by mature believers. Membership in the community must be active and voluntary. Thus, in the early days of the movement, proselytes were baptised by profession of faith even though they had already been baptised as children. This gave way to the name “Anabaptists” or rebaptisers.
- The radical dissociation of the spiritual from the temporal: contrary to what Zwingli advocated, a political body should not govern the Church.

The ideas of this religious group spread along the Rhine valley and in German-speaking countries. Persecution by the established churches drove Mennonites onto the roads of the Rhine Valley. They took refuge mainly in Alsace, in the Palatinate, and as far as the Netherlands, but also in the principality of Montbéliard. In Switzerland, the creation of the Committee for Anabaptist Affairs on 4 January 1659 marked the increase of the relentless persecution of heretics until the beginning of the 18th century.

In this context of persecution, caution was called for. Some families took refuge in remote and hostile places in Switzerland when they could not flee elsewhere. It is said that they sought shelter on the heights of the Bernese and Neuchâtel Jura above 1,000m, where the authorities granted them the right to settle. Although it seems that this assertion is unfounded because we have no record of an edict ordering the Anabaptists to settle above 1,000m, it can be argued that they settled where they could, and that they fled in haste and discretion. The family is the basic unit upon which the Anabaptist community is built. Moreover, in confessions, declarations and regulations, the emphasis is on the necessary break from a corrupt Christianity.⁷ This separation is not only dogmatic but also physical and geographical, since, in order to protect themselves from an “arrogant, wealthy, proud and violent world”,⁸ the Anabaptists settled away from towns and villages. In the early 18th century, they settled in the principality of Salm, between Alsace and the Vosges. In 1753, an adviser to the Prince of Salm denounced the lack of care provided to the population, due to the lack of doctors, surgeons, midwives and pharmacies. Those who could intervene to help the Salm people were also hampered by a terrain that made travel, and therefore the response time, longer. The prince’s adviser notes that:

the frequent illnesses, especially during the harsh winters, wreak terrible havoc and claim a prodigious number of people of all ages, for lack of experienced doctors or surgeons and pharmacies stocked with suitable and sufficient drugs to stop the said illnesses.⁹

In this context, any semblance of community medicine was of great help, even if it was not practiced by a doctor but by a healer, even an Anabaptist.

Sources of knowledge

Medical knowledge came from three different sources: first, from daily observation of plants and their effects,¹⁰ second, from oral transmission of knowledge, and third, from books.

Concerning the observation of plants and their effects, the Mennonites were tenants of their farms and lands until the 18th century in the Bruche Valley. They were most often settled in rural areas, in isolated hamlets or farms, on infertile land that the owners hoped would become fertile because of the recognised skills of the Mennonites. During grazing and various agricultural activities, Anabaptists had the opportunity to identify the herbs and plants needed to make ointments and remedies. When Frédéric Kirschleger, a French botanist, physician and professor of botany at the *École supérieure de pharmacie* of Strasbourg (1804–1869), met the Anabaptist farmer Steiner of the Lauchen farm in the Guebwiller valley, he reported:

When the farmer sees *Meum* or *Arnica* or Caraway, he will be able to tell you its virtues. To know the simple ones well is to know their virtues but also their poisonous character.¹¹

Thus, Alfred Michiels, a journalist who visited the farm of Salm in 1857 where Nicolas Augsburgers – the elder of this Mennonite congregation – lived, quotes in his book *Les Anabaptistes des Vosges* the words of a forester from the Prayé pass near Salm on the subject of *Aconitum napellus*:

A magnificent plant; sir, found in our mountains, in the Black Forest and in the Alps. Its beautiful blackish green stem and blue spikes of flowers invite you to pick it and disguise its bad qualities. (...) The Swiss [= Anabaptists] even claim that it can cause death by simple contact.¹²

Nicolas Hutt found a paragraph on this plant in a Mennonite notebook dating from 1866, probably copied from a medicinal work.¹³ Mathiot and Boigeol confirm that the Anabaptists were not only outstanding farmers, but that they also engaged in the veterinary art; and had their own doctors and apothecaries who dispensed old recipes and formulae.¹⁴ Treating humans and livestock in remote areas without attracting attention and getting noticed made it necessary and vital to develop the knowledge of the herbs in Mennonite communities.

Persecution has had a significant impact on the way in which traces of the past and present are kept by Mennonites. Indeed, the fear of leaving behind traces that could damage their lives or that of the community after a hasty departure has resulted in particular in the absence of a community register. There is no equivalent of parish registers in Mennonite congregations; it would be a perfect instrument in the hunt for heretics. Thus, a lot of information was transmitted orally...or was lost in oblivion! As a result, some cemeteries or farms have disappeared. On the other hand, it seems certain that old medical books were passed down from generation to generation in Mennonite families. Medical and medicinal knowledge was also passed on within both the family and the group. Nicolas Augsburger, whom the journalist Michiels met, is a case in point. Nicolas was the nephew of Jacob Augsburger of Celles, a health officer during the French Revolution.¹⁵ We could, therefore, be dealing with a dynasty of herb-doctors who passed down not only their recipes for remedies but also the reference works. An article published in the *Molsheim Gazette* in 1890 emphasises the knowledge of the elder Nicholas Augsburger: he fulfilled “the various functions of doctor of men and beasts, and he tried to improve his knowledge of this activity by studying medical books”.¹⁶

Indeed, Mennonite knowledge also had a bookish source. In his doctoral thesis, Nicolas Hutt¹⁷ deals in a precise manner with the contents of three medical works that are known to us thanks to Michiels’s book, *Les Anabaptistes des Vosges*.¹⁸ Nicolas Augsburger showed the Parisian journalist three books dealing with medicine, and also with plants and their effects. Two of them are by Theodor Zwinger (1658–1724), a Swiss scientist and member of the Basel Medical Faculty. These books on plants seemed old enough at the time. It is more than likely that Mennonites used these works long before 1793, especially since their author was Swiss and the language of these works had to be clearly understandable to them. The first book is entitled *Sicherer und Geschwinder Artzt oder Neues Artzney-Buch*¹⁹ (Basel, 1684; after Michiels 1703) and the second is *Theatrum*

Botanicum (Basel, 1696). Through these works, the author aimed to provide knowledge of plants and their benefits to all those who did not have access to the knowledge of doctors, whether for economic or geographical reasons, and also to fight against superstition.²⁰

The *Sicherer und Geschwinder Artzt* is an alphabetical list of diseases with descriptions of the clinical signs and treatment suggestions.²¹

The *Theatrum Botanicum* is a voluminous work of nearly 1,000 pages, dealing with trees and bushes for one third, and in the second part with herbs. There are also many indexes:

- plant index in German language
- disease index
- useful drug index
- index of plant names in Latin, French, Greek, Spanish, Italian, English, Danish and Dutch.

This book is a genuine manual of herbalism. Each plant study is constructed in the same way. The title mentions the name of the plant in German and Latin, followed by a diagram and various views of the plant. After the development of the names of this plant, the author then describes it, and gives its properties and possible uses in the medicinal field.

Augsburger was certainly not the only one who owned such books. Elisabeth Neyhouser²² of Salm had a library of 13 books: prayer books, history books and, who knows, perhaps also medical books. Unfortunately, the notary did not give the titles of the books.

The knowledge of the herbs and their use to cure people and livestock was no secret: these skills were known and recognised by the non-Mennonite population, who also benefitted from them. Playing on this recognition, from 1812 to 1845, Jacques Klopfenstein published an almanac entitled *L'Anabaptiste ou le cultivateur par expérience*. He was one of the first farmers to form artificial grasslands and eliminate fallow ones, and received the medal of the Agricultural Society of Paris in 1810 for his innovations. The almanac deals with veterinary and rural medicine, and advice and recipes for remedies are given, like any other almanac, but with the Mennonite reputation as a selling point.

Recognised and generalised knowledge

In remote areas, where the few doctors had fees that were too high for the largely modest population, it was common to resort to superstition or to empirical healers.

The Mennonites were known to be outstanding farmers and sold their products to the natives (canvas, vegetables, schnapps). Most of the time, they also had a garden in which they grew the herbs needed to make remedies. Several testimonies attest to these cultures. Therefore, when botanist Frédéric Kirschleger arrived at the Mennonite farm at the Sommerhof in the Ban de la Roche, he found a small garden where the following medicinal plants were grown:

Astrantia major,²³ Archangelica officinalis,²⁴ Rheum Rhabarbarum,²⁵ Iris germanica,²⁶ Liliun bulbiferum, Myrrhis odorata,²⁷ Matricaria Parthenium,²⁸ Levisticum offic.,²⁹ Lavandula Spica,³⁰ Sempervivum tectorum,³¹ Imperatoria Ostruthium^{32, 33}

He makes the same observation in the valley of Munster when he goes to meet Steiner, the Lauchen farmer. Kirschleger invites one to:

take a walk around the Cense. You will find a garden with medicinal plants: lovage, astrantia, angelica officinalis, the White Lily and the Martagon Lily, the Victoriola, the Imperatorium, the Marshmallow, etc., abound!³⁴

It is clear that these two gardens, which are hundreds of kilometres apart, have similarities. Imperatorium, lovage and astrance are plants found at the Sommerhof and Lauchen. In addition, it is known that there was a room on the first floor of the Salm farm for drying the plants that the elder Nicholas Augsburgur was still using. At the beginning of the 20th century, nails could still be seen on the beams to dry the plants.

This fame could also bring trouble. The Mennonites' knowledge of the herbs was recognised, but it was also well known that they had in their gardens the herbs needed to make remedies. This could lead to unwanted jealousy. Thus, in 1739, Jeanne Marchal³⁵ made her way to Salm to visit a Mennonite woman who was a healer, or rather to visit her garden. Jeanne Marchal was a widow from Moussey, who became pregnant with the child of Nicolas Desté. They were not married and she already had an illegitimate daughter. This new pregnancy seemed to be an undesired one.

Jeanne Marchal thought she would find the solution to her problem in the garden of a Swiss (Mennonite) woman in Salm and this was in the form of abortifacient herbs. The trial against Jeanne Marchal did not succeed in clarifying who, out of Nicolas or Jeanne, had this idea. But it seems Jeanne had had a preterm birth before. So, the couple set off for Salm. Nicolas wanted to be bled by a Swiss woman, but perhaps this was only a pretext. Once there, Jeanne stole the plants from the garden in front of the Anabaptist's house, taking advantage of the absence of the Swiss woman. Did Nicolas also want this abortion? Did he want to marry Jeanne, as she claimed? Did he know what Jeanne was planning to do with these plants? These questions could not be answered. Once back in Moussey, Jeanne prepared a beverage with the stolen plants and drank it several times. A few days later, the child was born. According to Jeanne's testimony, it was stillborn, which contradicts what a doctor said at the trial. She gave birth alone at home and kept the baby at her side in her bed before getting rid of it, first, in a trunk and then, as the smell began to become bothersome, in the garden. She was thus accused of the following: having tried to have an abortion through drinking a herbal concoction with herbs that she fetched from Salm, of having given birth secretly and without anyone's help, of having buried her child a few days later in a room on the top floor of the house she lived in after having kept it for a few days both in her bed and in a chest, and of having then transferred it from the said room to a garden.

The consequences of this robbery and abortion were tragic for Jeanne Marchal who was "sentenced (...) to be hanged and strangled until she died on a gallows".³⁶

In addition to public recognition, some Mennonites received official recognition for their expertise. Jacob Augsburgur of Celles received the charge of health officer during the Revolution. The tombstone of Pierre Bigler of La Lave (Doubs) who died in 1896 mentions that "he was renowned for his remedies".³⁷ In the bishopric of Basel in Switzerland in the 19th century:

many people prefer to turn to empirical healers (...) The best known at this time is an Anabaptist who lives in a remote area near Moutiers-Grandval. His house is full of consultants from one dawn to the next. He is probably preferred as much because of the cheapness of these remedies, which consist almost entirely of domestic singles, as because he has the marvellous secret of all illnesses to the inspection of urine.³⁸

Despite this undisputed and unchallenged recognition, Mennonite empirical healers maintained an ambiguous image in the eyes of the population. This

double image is not unique to Mennonites, but it is amplified by a number of factors specific to this religious minority.

Ambivalence of the Mennonite healer character

Herbs as a source of socialisation

In a medical desert, the Mennonites also knew how to put their knowledge to use for the indigenous population, which was often helpless in the face of a lack of care, for as Raphaële Garreta explains, “Despite their good will and dedication, the few rural doctors were often helpless in the face of ills beyond their competence”.³⁹ In rural, mountainous areas such as the Bruche Valley, doctors were scarce and most of the population could not afford their services, but instead turned to bonesetters and empirical healers.

Just like cloth and agricultural products, remedies and herbs were a factor in the contact between Anabaptists and the other people. We have traces of this in the archives, particularly in post-death inventories and guardianship accounts. Even the parish priest Lamblat of Bruche⁴⁰ bought cheese from the Mennonites, whom he might not have wanted to be associated with since they were heretics!

Mennonite herbalist healers often appear to have the title of *Maitre* (master).⁴¹ Thus, in an inventory after death on 30 July 1717, a sum of money was due to the Anabaptist “*maitre Pierre*” of Benaville. This title was not only valid for Anabaptists, since in a guardianship account of 22 November 1725,⁴² Curien Estienne of Moussej, one of the guardians of Marie Estienne, his niece, wrote that in 1724 he had spent seven francs for his healing by “*Maistre Michel*” of Senone, who was not Mennonite.

In the principality of Salm, the healer who appears most often is Master Pierre of Benaville. First of all, on 16 February 1713, in a guardianship account,⁴³ Jean Nicole le Jeune of La Petite Raon, guardian of Joseph Dieudonné of Ménil, had paid the “*Suisse de menaville*” 15 sols for drugs. Later, however, Jean Nicole le Jeune turned to another doctor. In another guardianship account drawn up by Jean Gogeon, mayor of Saulxures, he reported that in 1710 a sum of money had been paid to the Swiss of Benaville to bleed the widow Hanzo. The Anabaptists, it seems, also practised bloodletting. In 1712, new health expenses were incurred for the widow Hanzo. They were paid to “*m[aitr]e Pierre de Benaville*” to give drugs to the widow Hanzo and to bleed her, including four gros for

rosacea. *Maître* Pierre seemed to be well known and to enjoy a certain notoriety since he was called upon several times, which may lead one to think that the population was satisfied...or that his remedies were not effective! The *Soyou* (healer) healed not only people but also animals. The widow Hanzo's guardian also relied on Pierre de Benaville to bandage a foal on 5 October 1715. Animal care was just as important as human care, since for some households, livestock was the only form of wealth. This was also the case in Mennonite families who did not own their farms or land, only their animals.

Marc Brignon interviewed Mennonites about these practices. For example, Joseph Bacher, a Mennonite from the Quelles, told him that Peter Beller, his maternal grandfather (1869–1921), was a healer with plants, who would look for them according to the phases of the moon. He healed muscle wasting with plants and cloth bands, and he also knew how to heal animals. We notice in this example the shift from herbalist to sorcerer. To take the moon or certain liturgical feasts into consideration for the gathering of plants is more a matter of superstition than of simple usage.

Mennonite remedies did not just contain herbs. Sometimes, surprising ingredients were added. Raphaële Garetta confirms that empirical healers most often treated with herbs “but also use mineral or animal substances”.⁴⁴ In an article in the *Journal of Pharmacy*, the authors cite a remedy from a 1785 Mennonite manuscript that requires “the bone of a dead man, or an arm, or a hand on the same side as the injured one” to heal an old open wound.⁴⁵ Herbs were also used to produce spirits, such as Swedish elixir or gentian. These alcohols had fortifying and digestive properties, and were used as medicines. Herbs were also used in the form of essential oils.

The origins of a myth

Mennonites fall into the category of “empirical healers”, as defined by Marcelle Bouteiller, namely “a type of therapist who is heir to a medicine whose contents are transmitted from one to another and for whom authority is tradition”.⁴⁶ But we will see that this empiricism is often imbued with magic because “The empiricist today, as in the past, occupies an intermediate position between the magician who heals and cleans spells and the bonesetter”.⁴⁷ It is indeed difficult to know if in the implementation of the remedy, in the choice or gathering of plants, any magic element comes into play.

The figure of the healer was ambiguous and merged with that of the sorcerer. On the one hand, the people of the Bruche Valley saw in the Mennonite healer someone to seek help from in the case of human or animal illness or disease. On the other hand, fear was always present: when a cure went wrong, the healer was blamed because of the magical powers he was believed to have. Marc Brignon explains this ambiguity as follows:

The Anabaptist-Mennonite farmer was regularly, from the 17th to the 18th century, considered a sorcerer or a healer, and sometimes an ambiguous character involved in both activities. (...) it was essentially the transgression of a norm that led the perpetrator to be accused of witchcraft.⁴⁸

However, through some of their religious practices (e.g. refusal to baptise newborns, burial outside cemeteries), Mennonites were considered a strange group of individuals. The mystery surrounding the Anabaptist healer was not explained by his words and gestures, which remained misunderstood. The Mennonites came from German-speaking Swiss cantons, this being the dialect which they spoke – some of them still exclusively – at the beginning of the 20th century. While French was the language of commerce, Bernese was the language of the strange(r).⁴⁹ This guttural dialect, in which the Mennonites spoke, seemed enigmatic and disturbing in the French-speaking regions of Alsace, as well as in the Bruche valley.⁵⁰ As we can see here, language plays an important role in the way we perceive others. A witness in Grandfontaine told Marc Brignon that he had been treated by a Mennonite who was “jabbering something” he did not understand, which accentuated the mysterious and magical side of the healing and the character.

According to Marcelle Bouteiller:

generally speaking, the farmer considers as a potential sorcerer any individual whose living environment differs from the usual framework. If this explains his implicit mistrust of the shepherd, the fact is even more sensitive with regard to all those who spend their working life in the forest or in the woods.⁵¹

The forest represents a hostile environment, but other elements of Mennonite identity reinforce this image. The Mennonite figure is sometimes suspect because of his different religion, language⁵² and culture. Thus, in the Bruche valley, where it was customary to baptise stillborn infants in the water of the Lake of Lamay to keep them out of limbo, Anabaptist baptism

in adulthood was incomprehensible. The Mennonite dead were buried behind farms or in cemeteries in the forest, raising suspicions of occultism around religious ceremonies and practices. The Mennonite healer belongs to the category of the evil stranger described by Marcelle Bouteiller:

Strangers by their mode of habitat, occupation, food, the splitters and most of the other woodsmen also appear to be strangers by their native country. In this way, they participate in a classic category: the sorcerer who belongs to a faraway land.⁵³

In the regions of France inhabited by Mennonites, the testimonies were full of fantasies. Indeed, Charles Roy wrote of the Mennonites in the Montbéliard region:

a privileged few (...) possessed the arcane text, a book of magic, by means of which they could at will evoke the souls of the dead, make evil spirits appear or conjure them up, perform wonders, and finally indulge in such practices, which had nothing human or earthly, and could only be in the realm of the supernatural.⁵⁴

Father Tournier noted on this subject: “Superstitious without measure, they used spells for men as well as for beasts; quite simple Catholics even became the victims of these sorts of healers”.⁵⁵ Rare documents that have been handed down the generations reflect this mixture of superstition and the supernatural, especially in the formulas. A text⁵⁶ dating from the beginning of the 19th century, written in approximate French and handed down in a Mennonite family, thus gives the recipes and incantations to be used in different situations.

Some Mennonites had a reputation for lifting spells and, according to a testimony gathered by Marc Brignon, Mennonites all had power. Now, for Jeanne Favret-Saada⁵⁷ “to be caught up in spells, in death, in the words that bind the spell or unbind it, is a whole”, and the ritual in which the plants participate is only a support since “in witchcraft, the act is the verb”.⁵⁸ The pronounced formulas make the difference between the empiricist and the sorcerer. We noted above that some Mennonites not only use herbs for healing, but they also combine herbs and remedies (e.g. with words that are supposed to have magical power). Thus, around 1880–1890, a Mennonite healer who called himself “the Sheriff” lived above Grandfontaine, at the Hauts Prés farm. He was considered by his fellow citizens to be a very effective exorcist. So, when the cows stopped giving milk, the inhabitants of Grandfontaine would go to the “Sheriff” who would tell them to put this or that grass in front of their door to chase away

the evil spirit. Maybe Kirschleger was talking about the Victorial. As eminent a botanist as he was, he also played the mystery card by peddling superstitions. In one instance, he is questioning a Mennonite about the *Allium Victorialis*. The latter keeps silent:

lest he compromise himself with the infernal deities, or pass for a superstitious man. Indeed, the Victorial does not bear her name in vain; through her one remains victorious over all the evil spells of the spirit of lies and perfidy. The Victorial placed under the threshold of the door of the stable prevents the evil spirit from entering there.⁵⁹

An Anabaptist at the Hauts Prés farm recommended “putting your thumb in an egg, dipping your thumb in the egg. Break the shell, of course. And when the egg is cooked hard by the fever, the whitlow will be healed”.⁶⁰ Sometimes, healing is envisaged by carrying plants or minerals on one’s person, such as amulets. For example, a 1785 Mennonite manuscript recommends:

On the subject of verbena and its virtues: extract it from the ground on Wednesdays between 11 a.m. and 12 p.m. It is left for four weeks and then put back in the ground at the intersection of a crossroads. The plant becomes iron that can be forged. If one makes a ring out of it and wears it against his skin, then the weapon of the enemy being fought will shatter into pieces.⁶¹

These formulas and recipes seem to be inspired more by superstition than by real empirical knowledge. However, we cannot generalise the practices of Mennonite healers from one document. Mennonite collective memory also holds stories of similar practices. The Anabaptist Steiner of Lauchen in the Guebwiller valley even passed for a magician, or sorcerer, capable of casting a spell that would paralyse any thieves who would dare attack his property.⁶²

Conclusion

Mennonite herbalists have acquired knowledge that is both bookish and empirical. Their history led them to find solutions for the survival of their community, particularly in exile, and also for their livestock, which constituted their wealth and their means of subsistence. However, in spite of the principle of isolation from the world and the group’s attitude of withdrawal, especially geographically, the Mennonites have not kept this knowledge and know-how of medicinal herbs only for their co-religionists. They were not only renowned farmers but also renowned herbalists and

empirical healers. Herbs were available around the farms, growing in the gardens: it was enough to know them and their properties. While it is generally accepted that anyone who knows about herbs is a bit of a sorcerer, it is also true that there are testimonies about magic formulas or remedies that are more superstitious, especially from witnesses who have been treated by Mennonites. Popular imagery, moreover, quite easily associates magic words and mixtures with herbs hanging from the ceiling.⁶³

This combination of the knowledge of herbs and magic formulas can be compared to the practice of ‘powwowing’⁶⁴ (*Brauche/ Braucherei*) still alive in some Amish communities. John Hostetler gives a definition:

there are two kinds of Amish sympathy healers: those who become practitioners, set up a treatment room, and accept the role of ‘doctor’, and typically, sages and grandmothers who are pressed into powwowing when else fails. The latter do not accept contributions for their services. (...) One who desires to acquire the skill can obtain it only from an older person of the opposite sex upon the promise that the formulae will be kept secret.⁶⁵

It was said in the valley of the Bruche that the Anabaptists had the “*skré*” (secret); that is, the gift or power to heal. Hostetler situates the shift from Mennonite empiricism to magic during the 19th century:

In the eighteenth century it appears that the cures were largely herbal remedies and lore that were not unique to the Anabaptists, but in the nineteenth century the populace began to patronize Mennonite healers, and the Mennonite healers then began to practice magic⁶⁶ (...) there is a strong suggestion, however, that the transition from medicine to magic was associated with the perception outsiders had of the Anabaptist groups as bearers of special powers. The Anabaptists apparently accepted this view for themselves, for they too saw themselves as a separate people possessing a history with many miracles.⁶⁷

Samuel L. Yoder provides a definition in the *Mennonite Encyclopedia*⁶⁸:

Brauche, also called powwowing, is the practice of customary healing (from *Bräuche*, i.e. “customs”) transplanted to America by emigrants from South Germany, Alsace, and Switzerland, and practiced by many settlers in Pennsylvania Dutch country. (...) All authentic Amish powwowers agree that the art of Brauche is a gift of God and not self-induced. (...) Treatments are free, but a modest contribution is accepted. Brauche has been the subject of debate for centuries.

Whether in powwowing or in the use of herbs, the aim is the same: to care for both men and animals at little cost and to do good, in a spirit of

Christian charity. As Daniel Kriebel⁶⁹ points out, healing strengthens faith in the healer and through it, the healer is also considered a man of faith since “Powwow healing is by faith and prayers”. The Mennonite healer has knowledge of the benefits and virtues of the medicinal plants – knowledge that comes from many sources and is received through his faith as a gift that he shares with all people, whoever they may be. Travellers, writers, journalists, authorities – up to the 20th century, they all praised not only the virtues and skills of Mennonites, but also their life according to the gospel. In this context, what is the difference between the figure of the Mennonite sorcerer and that of the holy healer who performs miracles, or the herbalist monk? What is the difference between Nicolas Augsburgur in his *Kräuterstube* and Hildegarde de Bingen observing nature in order to write her *Physica, sive Subtilitatum diversarum naturarum creaturarum libri novem, sive Liber simplicis medicinae* (1151–1158)? They have faith in the same God, using the herbs that nature provides them with benevolently for a praiseworthy purpose: to help their neighbour. For although popular imagery often associates this knowledge of the herbs with the image of the sorcerer, did the medicinal plants not also have a central place in the monasteries? Wasn’t the answer in the way the sorcerer looked at them, at their identity, at their culture, and at differences and the unknown in general? Is this image of a sorcerer not the result of a cultural, linguistic and religious misunderstanding? One cannot judge a book by its cover – even an arcane one.

Notes

¹ Royden Loewen, “Mennonite studies”, accessed 2 January 2020, http://mennonitestudies.uwinnipeg.ca/events/menno-medicine_2015/mennonites_and_medicine.pdf.

² The main distinguishing feature of the Amish as compared to the Mennonites is their resistance to embracing modern technology. The Amish make very little use of technology and generally have very little contact with the outside world. They dress in very traditional clothes and live in small communities. The Mennonites, on the other hand, do not usually distinguish themselves by their clothing. They have no problem using technology and do not maintain a separation from the outside world.

³ Mennonite World Conference, “About MCC”, accessed 1 February 2020, <https://mwc-cmm.org/content/about-mwc>.

⁴ Yuri Anna Lee and Lisa A. Ruth-Sahd, “When the East Meets the Amish: An Application of Folk Medicine in the Amish Community”, *The Journal of Lancaster General Hospital* 6, no. 4, Winter 2011, 114–118.

⁵ Nicolas Hutt, *Pratiques médicales des mennonites en Alsace et au Pays de Montbéliard*, thèse de médecine, Strasbourg, Université Louis Pasteur, 1984.

⁶ Huldrych Zwingli or Ulrich Zwingli (1 January 1484-11 October 1531) was a leader of the Reformation in Switzerland.

⁷ Jean Delumeau, *Le péché et la peur. La culpabilisation en Occident. XIIIe-XVIIIe siècles*, Paris, Fayard, 1983, 41.

⁸ Steven M. Nolt, *A History of the Amish*, Intercourse, Good Books, 2003, 14.

⁹ Archives Départementales des Vosges (Epinal) (ADV) 3C49: “*les maladies fréquentes surtout pendant les rudes hivers font des ravages terribles et enlèvent un nombre prodigieux de personnes de tout âge, faute de Médecins ou chirurgiens expérimentés et pharmacies garnies des drogues convenables et suffisantes pour arrêter lesdites maladies*”.

¹⁰ Hutt, *Pratiques*, 97.

¹¹ Frédéric Kirschleger, *Flore d'Alsace et des contrées limitrophes*, Strasbourg, Huder, 1862, 3: 283: “*Quand le fermier verra le Meum ou l'Arnica ou le Carvi, il saura vous en dire les vertus*”.

¹² Alfred Michiels, *Les Anabaptistes des Vosges*, Paris, Poulet Malassis 1860; Obernai, Gyss, 1980, 68: “*Une plante magnifique; monsieur, que l'on trouve dans nos montagnes, dans la Forêt Noire et dans les Alpes. Sa belle tige, d'un vert noirâtre, ses épis de fleurs bleues invitent à la cueillir et déguisent ses mauvaises qualités. (...) Les Suisses [= les anabaptistes] prétendent même qu'elle peut causer la mort par simple contact*”. Citations refer to the Gyss edition.

¹³ Hutt, *Pratiques*, 100.

¹⁴ Charles Mathiot and Roger Boigeol, *Recherches historiques sur les anabaptistes*, Flavion, Éditions Le Phare, 1969, 94.

¹⁵ Jean Seguy, *Les Assemblées anabaptistes-mennonites dans l'Est de la France*, Paris, Mouton, 1977, 510-511.

¹⁶ Information transmitted by Marie-Thérèse Fischer.

¹⁷ Hutt, *Pratiques*, 85-97.

¹⁸ Michiels, *Les Anabaptistes*, 92-94.

¹⁹ Theodor Zwinger, *Der Sichere und Geschwinde Artzt: Oder Neues Artzneybuch: Worinnen Alle und jede Kranckheiten des Menschlichen Leibs, nach Ordnung des Alphabeths, kurtzlich vorgestellt sind, auch, wie sie am sichersten und geschwindesten zu heylen, angezeigt wird. Alles nach grundmässigen Lehrsätzen, aufgesetzt, und auß der erfahrensten Aertzten, fürnemlich Paracelsi, Helmontii, Michaelis, Wepferi, Hildani, Etmülleri, Wedelii, Bohnii, Cardilucci, Barbette und anderer, so wol gedruckten als ungedruckten Schrifften, Zu vieler, sonderlich auff dem Land wohnenden, Nothleydenden, wie auch aller Liebhaberen der Artzney-kunst vielfältigem Nutzen ... zusammen gezogen*, Basel, In Verlag Johann Philipp Richters, 1684.

²⁰ “*Es ist mir aber allzusehr bewuß/ daß auch auff dem Land/ und hin und wieder viel fromme Herzen sich befinden/ welche / ob sie gleich von allen Aertzten und Apotheckeren entfernet/ dannch ihre Haut an solche Abergläubische Vieh-ärzte und Betrieger (deren Symbolum, Mundus vult decipi, decipiatur, sie gar wol wissen) nimmermehr wagen/ sondern viel lieber auff bewährte Artzney-bücher sich steuren/und nach derselben angeben einige leichte und geringe Artzneyen bereiten/ auch mit zimlicher würckung zu nutz ziehen.*” Zwinger, *Der Sichere*, Folio 4.

²¹ Hutt, *Pratiques*, 92.

²² Archives Départementales du Bas-Rhin (Strasbourg) (ADBR) 1758W162 No. 699.

²³ *Astrantia* is melliferous and purgative.

²⁴ *Angelica officinalis* is a stimulant of the digestive system and also has anxiolytic properties.

²⁵ Rhubarb is a tonic and a laxative (especially the roots).

²⁶ The rhizome decoction has expectorant properties, it treats head colds and is used as a purgative; the flowers are said to have diuretic properties.

²⁷ This is chervil. Its seeds can be used in liqueurs and its leaves can be used as a condiment.

²⁸ This is camomile with multiple properties: analgesic, anti-inflammatory, anti-neuralgic, anti-spasmodic, antiseptic, healing, digestive.

²⁹ This is officinal lovage. Seeds, leaves and roots combat water retention and facilitate the elimination of toxins. The root has anti-convulsant, sedative, digestive and expectorant properties. It is a digestive plant, with diuretic virtues. Prepared as an infusion, lovage can also relieve migraine.

³⁰ Lavender has soothing properties and can also be used to treat skin problems, such as dermatitis, eczema, psoriasis and acne. A massage with lavender essential oil calms joint and rheumatic pain.

³¹ The houseleek grows on poor, stony soil and needs little care. Its applications, however, are multiple: insect bites, ulcerated wounds, galls, ear pain, sties, freckles, corns, warts, darts, burns, chapping, insect bites and also treatment of ulcers, urinary functions, haemorrhages, haemorrhoids, cramps, uterine pain, tumours, dysentery and vermifuge.

³² Benzoin has anti-inflammatory properties and acts as a general tonic. It can be used in particular to make remedies concerning the digestive sphere, the respiratory tract.

³³ Il “y trouve un jardinet où l’on cultive comme plantes médicinales: *Astrantia major*; *Archangelica officinalis*, *Rheum Rhabarbarum*, *Iris germanica*, *Lilium bulbiferum*, *Myrrhis odorata*, *Matricaria Parthenium*, *Levisticum offic.*; *Lavandula Spica*, *Sempervivum tectorum*, *Imperatoria Ostruthium*”. Kirschleger, *Flore*, 239.

³⁴ (Il invite à) “faire une promenade autour de la Cense. Vous y trouverez un jardinet à plantes médicinales; la Livèche, L’astrance, L’angélique, le Lys blanc et le Lys Martagon, la Victoriale, l’impératoire, la Guimauve, etc., y abondent!”. Kirschleger, 283. White lily has antiseptic virtues with a healing action on wounds, burns, cuts and frostbite. A natural softener, it soothes redness, warmth, itching and insect bites. Martagon lily is a species with emollient, resolving and diuretic properties. Garlic disinfects the intestine and has vermifuge properties. It relieves stomach aches, bloating, diarrhoea. *Althaea officinalis* has emollient properties.

³⁵ Archives Départementales de Meurthe et Moselle (Nancy) (ADMM), BJ 6812.

³⁶ *Ibid.*: Jeanne Marchal fut “condamnée (...) pour estre par luy [exécuteur de haute justice] pendue et estranglée jusque a ce que mort sensuive a une potence”.

³⁷ Jean Séguy, “Religion et réussite agricole. La vie professionnelle des Anabaptistes français du XVIIe au XIXe siècles”, *Archives de Sciences Sociales des Religions* 28, 1969, 118.

³⁸ Charles-Ferdinand Morel, *Histoire et statistique de l'ancien évêché de Bâle, Délémont*, Bibliothèque Jurassienne, 1959, 247-248.

³⁹ “*Malgré leur bonne volonté et leur dévouement, les rares médecins ruraux étaient souvent désarmés face à des maux dépassant leurs compétences*” (Raphaële Garreta, *Des simples à l'essentiel*, Toulouse, Presses Universitaires du Mirail, 2006, 44).

⁴⁰ ADBR 6E43. 105; 1. 04. 1762.

⁴¹ Marc Brignon, *Sorciers et guérisseurs des pays du Donon*, Raon-L'Étape, Kruch, 1995, 25.

⁴² ADMM BJ 1233.

⁴³ ADMM BJ 1184.

⁴⁴ “*Les empiriques...soignent le plus souvent par les herbes, mais ont aussi recours à des substances minérales ou animales*”. Garreta, *Des simples*, 49.

⁴⁵ Fanny Yung, Jean-Pierre Chaumont, and Helga Mettetal. “*Plantes et remèdes d'utilisation ancienne par les Anabaptistes-Mennonites*”, *Revue d'histoire de la pharmacie* 320, 1998, 413.

⁴⁶ “*un type de thérapeutes héritiers d'une médecine dont on se transmet les contenus et pour qui l'autorité est la tradition*”. Garreta, *Des simples*, 48.

⁴⁷ “*L'empirique aujourd'hui comme hier, occupe une position intermédiaire entre le magicien (conjureur et leveur de sort) et le rebouteur*”. Marcelle Bouteiller, *Médecin populaire d'hier et d'aujourd'hui*, Paris, Maisonneuve & Larose, 1987, 189.

⁴⁸ Brignon, *Sorciers*, 25. In this book, Marc Brignon is interested in sorcerers and healers, their methods and the image that the population had of them.

⁴⁹ Françoise Naas-Fischer, “*Mennonites bruchois et huguenots berlinois: Approche comparative*”, in *Une germanistique sans rivages. Mélanges en l'honneur de Frédéric Hartweg*, ed. Emmanuel Behague and Denis Goedel, Strasbourg, PUS, 2008, 123.

⁵⁰ The history of Alsace is punctuated by wars and changes of nationality. As a region bordering Germany, it is the bearer of a dual culture: French and Germanic. A German-speaking dialect is spoken there: Alsatian. However, some of the valleys are French-speaking and, until the beginning of the 20th century, a Romance patois was spoken there. This is the case in the Bruche valley.

⁵¹ Marcelle Bouteiller, *Sorciers et jeteurs de sort*, Paris, Royer, 2000, 170.

⁵² Mennonites were originally from the German-speaking Swiss cantons.

⁵³ Bouteiller, *Sorciers*, 176.

⁵⁴ Charles Roy, *Us et coutumes de l'ancien pays de Montbéliard, et en particulier de ses communes rurales*, Montbéliard, *Mémoires de la Société d'émulation de Montbéliard* XVII, 1886, 84.

⁵⁵ Constant Tournier, *Le catholicisme et le protestantisme dans le pays de Montbéliard*, Besançon, Paul Jacquin, 1894, 95.

⁵⁶ Against diarrhoea: “*vous prendere la moitié dune tete daille, vous la haches, vous la mettere dan la moitié dun ver de audevie, un peu de cheve de orelle gauche, une pincé de poivre autant de sell le tut enseple*”. Pour le “*misererez*” (colique très dangereuse et douloureuse), la recette, peu digeste, semble sortie d'un grimoire: “*vous prendres une merte de chat, la brulers, vous brenderes les*

cedre et vous le mettre dans l'audevi ou du vinaigre, vous prenderes des cheveux de l'orelle gaughe, vous le bruleres sour une pele afeux, vous mitteres le tot ensemble et vous les Boires". Pour traiter le "vilain mal", maladie vénérienne semblable à la vérole, il faut à nouveau fabriquer une mixture, mais aussi dire les paroles suivantes: "je te congure de la pard du grand dieu vivant de sortir de dessus la personne aussi vifement que tu as entre et de tourner en terre, de te consumer aussu menu que le sable et la terre du Royaume et de la mer".

⁵⁷ Jeanne Favret-Saada, *Les Mots, la Mort, les Sorts : la sorcellerie dans le bocage*, Paris, Gallimard, 1977, 25.

⁵⁸ Garreta, *Des simples*, 47.

⁵⁹ Kirschleger, *Flore*, 283.

⁶⁰ Text transmitted by André Nussbaumer.

⁶¹ Yung et al. "Plantes et remèdes", 414.

⁶² Abbé Charles Braun, *Légendes du Florival*, Guebwiller, Jung, 1866, 176-177.

⁶³ Garreta, *Des simples*, 47.

⁶⁴ The Mennonite Encyclopedia defines it as "a superstitious custom, no doubt descending from medieval European folk superstitions, which professes to heal sicknesses by the pronouncement of a mysterious formula handed down from one practitioner to another, still practiced to some extent among the Pennsylvania Dutch of Pennsylvania and other regions in the 1950s. Some Mennonites and Amish have indulged in the practice. According to the theory the ability to powwow (that is, to cure by powwowing) is handed down from a male to a female and then in turn from a female to a male practitioner. Powwowing is not "faith healing" nor healing by prayer. Similar practices involve the ability to cast off "the evil eye" which may have been "cast" upon beast or man by a person able to do so." (Bender, Harold S. "Powwowing." *Global Anabaptist Mennonite Encyclopedia Online*. 1959. Web. 20 Aug 2021.

[https://gameo.org/index.php?title=Powwowing&oldid=104333.](https://gameo.org/index.php?title=Powwowing&oldid=104333))

⁶⁵ John A. Hostetler, *Amish Society*, Baltimore and London, John Hopkins University Press, 1993, 338.

⁶⁶ Hostetler, 340.

⁶⁷ Hostetler, 342.

⁶⁸ "Brauche". *Global Anabaptist Mennonite Encyclopedia Online*, accessed 30 January 2020, <https://gameo.org/index.php?title=Brauche&oldid=104334>.

⁶⁹ David W. Kriebel, *Powwowing Among the Pennsylvania Dutch: A Traditional Medical Practice in the Modern World*, (University Park, Penn State University Press, 2007), 92.

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PART THREE:
HERBS IN THE ECONOMY

WORTH MORE THAN GOLD: THE TIBETAN HERB CRAZE. ECONOMIC, SOCIAL AND ENVIRONMENTAL STAKES OF ‘YARTSA GUNBU’

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Introduction

Among the many resources currently coveted in Tibet, such as water and minerals, one stands out in particular as it is considered to be a type of herb. Indeed, over the past few years, yartsa gunbu (*dbYar rTswa dGun 'Bu* in the Wylie system of transcribing Tibetan¹) has reached extremely high prices, averaging those of gold, which has led to it being nicknamed ‘brown gold’. Tibetans harvest the mushroom, for that is what it actually is, on the high plateaux and it is mainly bought by Chinese consumers for whom it represents an important natural supplement for vital energy. For many Tibetans, who are struggling on the job market and in the Chinese economic system, it represents a vital source of income, which finances their housing rent, food, studies, and even migration and exile. But will the constant increase in its exploitation for commercial gain eventually pose a threat to the durability of this resource? More and more research is being carried out on this mushroom, among which is that of the American botanist and scientist Daniel Winkler,² as well as that of the ethnobiologist Alessandro Boesi who specialises in Tibetan botanical knowledge.³ The next step may be its reproduction in laboratories and its commercial exploitation in the West, notwithstanding the biological difficulties of dissociating the product from its natural environment. Thus, there are many issues at stake concerning this very valuable natural resource.⁴

The first part of this chapter will be devoted to facts and history concerning yartsa gunbu, before focusing on the economic, social and environmental stakes of this new Tibetan ‘gold’ whose value and exploitation raise many issues on different levels, whether for harvesters

(or diggers), sellers, consumers, or for the area involved. With the market no longer being limited to Asian consumers, yartsa gunbu has come to the West as a health product, a pharmaceutical resource, a currency, and an object of academic interest and research. Its rarity has led to the development of yartsa gunbu synthesis and cultivation in laboratories, and to it entering Western habits. The impact of its consumption thus raises questions of sustainability, fair trade, quality and value in the long term.

Facts and history

The Chinese connotation of the yartsa gunbu herb may come in part from its scientific name *Cordyceps sinensis*. The name *cordyceps* that is commonly used to designate it comes from ‘cordylê’ meaning ‘bulge’ or ‘hump’ and ‘ceps’ meaning ‘head’. The fungus that parasitises the body of a caterpillar hibernating in the earth appears above ground in the spring as a grass that looks like the top of a small club. Yartsa gunbu thus appears to comprise two parts, the body and the stem. DNA studies have shown that there are different kinds of *cordyceps*, including *Cordyceps sinensis* (the most expensive of which is the Tibetan *Cordyceps sinensis*) and *Cordyceps militaris*, which belongs more specifically to the *Ophiocordycipitacea* family. The Chinese name ‘dongchong xiacao’ (冬虫夏草, ‘winter worm, summer grass’ abbreviated to ‘chongcao’ or ‘herbal worm’) comes from the Tibetan name ‘yartsa gunbu’ (Tib. dbYar rTswa dGun ‘Bu), which translates as ‘summer grass, winter insect’.

The parasitised caterpillar is the larva of the moth Thitarodes (*Lep. Hepialidae*), which feeds on the roots of kobresia, a plant that grows in pastures above wooded areas from about 3,200m up to about 5,000m in Tibet and the Himalayan range. The larva, which is 5–10cm long, lives underground for several years and burrows quite close to the surface when parasitised. The fungus develops in its body, first asexually as yeast and then sexually as mycelium. The caterpillar dies when its entire body or exoskeleton is eventually filled by the fungus, which emerges between its eyes in the spring to hatch at the surface and release its spores. The mode of infection has not yet been clearly determined but probably takes place above ground after the release of spores, which occurs at the same time as the hatching of the moth’s eggs.

The use of yartsa gunbu was possibly described in the Tibetan treatises of the “Four Tantras” (Tib. *rGyud bZhi*) as early as the 8th century by Yuthok Yonton Gonpo (but under a different name: ‘daji’⁵) and since the 15th century by the Tibetan physician Zurkhar Nyamnyi Dorje (1439–

1475) in his treatise entitled “Oral Instructions on a Multitude of Medicines” (Tib. Man nGagbYe Ba Ring bSrel).⁶ It is said to have appeared at the end of the 17th century in Chinese treatises⁷ and has been known in the West since the 19th century. Indeed, one finds a representation in the drawn plates of “Vegetable wasps and plant worms: a popular history of entomogenous fungi, or fungi parasitic upon insects” by M.C. Cooke, published in London in 1892.⁸ Tibetans would have first noticed the stimulating effects of yartsa gunbu on the yaks they grazed on the highlands. Today, among the many medicinal qualities of yartsa gunbu, its ability to act as an aphrodisiac seems to explain its great success on the Chinese market and the very high prices it can fetch. This aspect was already mentioned by Nyamnyi Dorje in his text “An Ocean of Aphrodisiac Qualities”, as shown in these verses translated from Tibetan into English by Jakob Winkler:

In this world sexual desire is
 The most marvelous of all earthly pleasures,
 The essence of the enjoyment of all the senses...
 As to this medicinal substance:
 It grows in regions of beautiful mountains
 Such as remote grassland mountains.
 In the summer it is a blade of grass [growing] on a worm
 Similar to the leaf of mountain garlic.
 The flower resembles a silken green sedge.
 The root resembles cumin seed at the end of autumn.
 The taste is sweet and a little astringent.
 The post-digestive [taste] is sweet and the quality is oily.
 It has a slight warming quality.
 It removes prana diseases, cures bile diseases and does not raise the phlegm; a
 marvelous medicine.
 In particular, it especially increases semen.
 It is a flawless treasure of an ocean of good qualities.⁹

As both David Winkler and Alessandro Boesi humorously point out, Tibetans themselves would say that there is little need to use such means to stimulate their own libido.¹⁰ Nevertheless, the numerous medical applications for which the components of yartsa gunbu could prove useful explain the growing interest in China and the West, from the medical and scientific worlds. The Chinese use it for fatigue, back pain and sexual dysfunction, as well as for kidney, lung, liver and heart diseases. Tibetans themselves use it in medicines, teas or tonics, in combination with other medicines, for old age or a generally weak state, to boost the immune system, and for kidney, heart and liver problems, and sometimes even for

eyesight problems or hepatitis B.¹¹ Research has been undertaken to study its various other potential applications.

In addition to scientific research articles and numerous online vending sites, yartsa gunbu has also become a subject of many documentaries found on YouTube, some of which are shot in Tibet such as “Golden Worm” by Cairang Duojie in 2014.¹² Although Tibetan cinema is still in a stage of early development and has only really taken off in this last decade,¹³ one of the main Tibetan filmmakers, Dorje Tsering Chenaktsang, also devoted a documentary to the harvesting of yartsa gunbu in 2014.¹⁴ Its title of “Yartsa Rinpoche”, which translates as “Precious Yartsa (gunbu)”, can also be seen as a play on the concept of ‘precious’ and human personification since ‘Rinpoche’ is a title usually given to highly accomplished Tibetan Buddhist teachers. One can surmise that in the near future, yartsa gunbu harvesting scenes may become the backdrop of Tibetan feature films due to the potential tensions and interactions surrounding this valuable resource.

Economic stakes

As mentioned in the introduction, the Tibetan territory contains multiple resources that are coveted and exploited by China, including water, timber and minerals.¹⁵ In the case of yartsa gunbu, we are dealing with a non-mineral source, traditionally harvested by Tibetans and not by the Chinese. Daniel Winkler includes it in a new category that he coined NLRP or “non-livestock rangeland products”.¹⁶ It is a vital source of income for some Tibetans, sometimes representing 50–90% of their total annual income.¹⁷ It is especially with the development of a middle class in China since the beginning of the 21st century, with the associated increase in purchasing power and the rise of consumerism, that the market for this product has grown exponentially, with demand coming not only from mainland China but also from Taiwan, Hong Kong and some Western countries.

The harvesting of yartsa gunbu is carried out by groups of 10 to 60 people, from the same village or clan. Sometimes, schools are closed during this crucial period so that all the children can participate in the harvesting, since their sharp eyes distinguish much more easily the fine top blade of the yartsa gunbu emerging from the ground. In 2015, in the Derge area in the Kham region, for example, the harvest took place from the 15th day of the 3rd Tibetan month to the 5th day of the 5th Tibetan month, which is to say from approximately the beginning of May to mid-June (after which the

caterpillar rots). One kilo of yartsa gunbu includes about 3,000 small (or 1,600 large) specimens. Prices on urban markets have evolved very rapidly in the past few years, since a specimen was worth 1–5 yuan in 1999, 4–10 yuan in 2004 and finally 40–100 yuan in 2014. In Derge, the price of a small specimen increased by 10 yuan between 2015 and 2016. The price of a kilo of yartsa gunbu in 2016 varied from 120,000 yuan (about 16,000 euros) for large specimens to 200,000–300,000 yuan (27,000–40,000 euros) for small ones, and thus reached approximately the price of gold in November 2016 (32,000–44,000 euros per kilo).¹⁸ Variations in climate also influence the market. In 2009, for example, drought made prices rise to heights similar to the regular price reached in 2016 and led to an increase in harvesting in neighbouring Nepal.¹⁹ The influx of Han tourists in Tibet also plays an important role in increases in the price of yartsa gunbu, as it is one of the most popular tourist products sought after in regions where it is available.

To understand what this means in terms of income, when harvesting yartsa gunbu a person can earn in one day between three and 30 times what he or she would earn working in construction or agriculture, for example. The person who informed the author about this said that his sister had found “only” 2 kilos in 2017, which was half as much as the preceding year.²⁰ The money earned from this was used to pay for the annual rent, annual provisions, heating, the children’s studies at high school and university in Lhasa and China, health care, etc. The extended Tibetan family (often including a dozen people) still generally operates on a clan model. Including all the cousins and relatives, the clan can comprise several dozen related people, despite the great number of Tibetans who died or were killed during the Great Leap Forward (1958–1962) and the Cultural Revolution (1966–1976), sometimes decimating an entire generation in a single family.²¹ The flow of loans and borrowed money between the different members, therefore, serves to fund community solidarity when family breadwinners are arrested and imprisoned, or deceased.²² The harvest is also used to pay for departures into exile (about 20,000 euros are needed to pay smugglers for a passage to India or Europe). Exile is motivated by economic or political reasons. Yartsa gunbu thus participates in the local economy and also in the alternative economy.

Tibetans in the main production areas of yartsa gunbu generally have harvesting permits that cost 10–300 yuan. These permits were relatively cheap for foreigners in the 1990s (10–30 yuan) but rose to 300–1,500 yuan in 2005, with the most expensive being 4,000 yuan in Golog province in Qinghai which is estimated to produce 8–9 tons (and up to 23 tons) of

yartsa gunbu a year.²³ Foreign harvesters are mainly Chinese, Hui Muslims or Tibetans from the Shigatse region. Resale on the Lhasa market, which has about 15 major brokers, is mainly through Hui Muslims (for more than half of the annual production) and Khampas because of their business networks. Cleaned caterpillars, from which any traces of soil or dust have been removed, are much more valuable and usually pass through the hands of four middlemen. The total annual production is around 200 tons. Having become a symbol of social status on an equal footing with other luxury products such as wine, champagne or French perfume, yartsa gunbu was until recently used as a present to obtain favours from civil servants. But since the anti-corruption campaign launched by the current Chinese president, Xi Jinping, prices have reportedly fallen. Wealthy Chinese no longer spend their money ostentatiously and if they continue to buy yartsa gunbu (a course of treatment can cost up to 270 euros per day), they buy it for themselves.²⁴

Despite its economic value, due to its very nature as a sentient being (albeit normally a dead one) and due to its location (in the ground which can be considered the realm of earth spirits), yartsa gunbu raises issues specific to Buddhism and in particular to Tibetan Buddhism. The moral quandary it raises, as studied by Emilia Roza Sulek, points to the tension between economic necessity and religious considerations. Sulek posits an “economy of sinning” as her theoretical tool of analysis. As the harvesting season (spring) also corresponds to the month of Sagadawa (birth, enlightenment and nirvana of Buddha) during which one should refrain from negative deeds, this can pose a moral problem. The fact that the caterpillar may not always be considered as completely dead is shown in these two testimonies:

My wife took me to Nagchu. I couldn't see any *yartsa*, but she showed me one. I covered it with a piece of dung so that it could live. If it's a *digpa*,²⁵ why should I commit it? [From a caterpillar fungus trader, over 60 years old]

Maybe it's a *digpa* or maybe not. People say different things. But when I dig *yartsa*, I say *om mani padme hum*²⁶ for each of them. [From a pastoralist, 27 years old]²⁷

What is also interesting is the environmental value represented by yartsa gunbu for the pastoralists in Domkhog Township, in the Golok area of eastern Tibet who Sulek interviewed. The natural resource was considered as being part of the ‘essence’ of the earth (*sabchud*), contributing to its wealth or value:

Q: Does digging caterpillar fungus have any effect on environment?

R: It does. Grass grows fewer and thinner. The land is losing its *sabchud*. Also animals give less milk. The land must be losing its *sabchud* when people dig out millions of yuan from under the ground. Gold is dug by the government, and *yartsa* by Chinese, Tibetans and farmers. [...] It's good for them, but bad for the land. All people here are nomads and depend on livestock. When the land is losing its *sabchud*, livestock give less milk and get weaker. This bad weather [it was a rainy summer] is perhaps also connected to *yartsa*.²⁸

Although scientific evidence is lacking, one can surmise that the animals grazing on land where *yartsa* gunbu is found may benefit to some small degree from any amount they might ingest of the mushroom's growth above ground. Also implicit in this response is the opposition between different classes of people: the nomads on whose pastures *yartsa* gunbu is found and the sedentary population (farmers and urban dwellers) who come up to the pastures in the spring for the short period of harvesting. There is also the opposition between the two ethnic groups who live in Tibet today and who have different views on the exploitation of its resources. As for the effect on the climate of the over-exploitation of *yartsa* gunbu, the link should probably be seen in the greater context of global climate change in which human activity affects the environment, including the climate, causing changes to both plant growth and the development of living organisms.

In the Tibetan Buddhist system or worldview, many different realms of beings that may not be perceptible to ordinary human senses exist, including earth spirits or guardians, territorial protectors, mountain gods, underground deities, etc. In harvesting *yartsa* gunbu, one should be careful not to incur their wrath, which thus links the economic aspect of this resource to the religious dimension that pervades Tibetan culture despite 70 years of Communist rule. In some cases, the cost may carry a human price or endanger the family's animals, as related here by a religious woman who suggests that the earth guardian was not happy:

A *khadroma* [a spiritually realized woman] from Dawu was sure that this money brings trouble:

If a family earns 50 000, 60 000 or 100 000 yuan from *yartsa*, it will definitely face problems. Someone in the family will pass away or the livestock will die. I don't know why. Maybe among *yartsa* there is something what belongs to the *zhibdags* [earth guardian] and people take it away?²⁹

Zhibdag are usually known to be very protective of their territory and its treasures (i.e. resources), and to require respect and propitiation. These are aspects of pre-Buddhist indigenous culture that have been integrated into Tibetan Buddhist practice.

Field observations in a European country such as France show that yartsa gunbu is now available outside of Tibet and China – for example, through Tibetan refugees or Chinese immigrants residing in the West. When asked about the possibility of buying some, my contact at the Office of Tibet in Paris replied in the affirmative and quoted a rate of 8–10 euros a piece, offering to help buy it if necessary.³⁰ The price quoted (equivalent to 65–80 yuan) per piece corresponds to prices in Tibet, so one can suppose that there are few intermediaries in the supply chain. In another case, in 2019, a Tibetan vendor in Paris was surprised by the shoddy appearance of a Tibetan acquaintance who wanted to buy some specimens of the ‘precious’ yartsa gunbu to boost the health of his elderly father who had just arrived from India where he had been in exile for 60 years. The vendor did not think the other Tibetan would have had the means to buy the product. In the Buddhist group that the latter taught, in June 2019, at the end of a day-long initiation and teaching in St-Brieuc in Brittany, one of the French practitioners passed around a yartsa gunbu and liqueur-based tonic, which he had prepared following the traditional Tibetan recipe directions, to other members of the group after dinner. The taste was distinctly reminiscent of mushrooms. French people in close contact with Tibetans of the diaspora may thus also eventually integrate the use of yartsa gunbu as a health product or tonic. Other French people, with environmental, sustainable development and fair-trade concerns, such as Christian Pamies, work directly with Tibetans in Kham and Qinghai, and import yartsa gunbu which they process for online stores of natural products, such as “Anastore”, a European e-business company.³¹ Yartsa gunbu thus seems to be entering Western culture through the Tibetan network of exiles and through the development of natural health products. Its availability as a natural product coming directly from Tibet to Western countries reflects the ongoing dynamism and efficiency of these Tibetan networks, which are not controlled by Chinese immigrants or sellers.

Scientific aspects and environmental stakes

Beyond its economic value for a whole part of the Tibetan population in the highlands and for dealers in urban areas, what is the medical and scientific interest of yartsa gunbu, and does it represent an interesting

biological and chemical resource for modern pharmacopoeia? Will its components be increasingly found in preparations for people participating in sports, or in food supplements for even wider consumption around the world and particularly in Western countries?

As early as the 17th century, yartsa gunbu was used by the Chinese for indications related to stress and fatigue, to strengthen the immune system and vital energy, to improve sexual functions, and to slow down ageing, as well as for kidney, liver and lung functions. It was also used to treat opium addiction, anaemia and impotence, and in cases of convalescence. It was important to consume the two parts (the body and the stem) together for the greatest effectiveness and yartsa gunbu was consumed in powder form, in soups or meat dishes (especially stuffed duck). In Tibetan medicine, it is mostly used in combination with other plants or minerals to optimise its effects.

However, Western interest in yartsa gunbu is much more recent, dating back to the early 1990s when the performances of Chinese athletes were noticed at the Chinese National Games in 1993. At that time, yartsa gunbu was not classified as a doping product, and it was assumed to lower blood pressure and facilitate breathing efforts. Another athlete, Lee Chong Wei, who was a Malaysian badminton champion, is also said to have used yartsa gunbu to improve his performance. But one wonders in this particular case whether the steroids found in his 2014 yartsa gunbu capsules were of natural origin. The role of this 'herb' in sports performance was then researched in the late 1990s and references to its effects can be found, for example, in the proceedings of the 46th annual meeting of the University for Sports Medicine in Seattle, Washington. The use of yartsa gunbu for its medical properties is also spreading in the West for the same applications as in traditional Chinese medicine. Thus, it seems to be able to cure multiple ailments. Its current applications include the treatment of hepatitis B, tuberculosis, asthma, cholesterol and certain cancers – of the breast, lungs or skin in particular. It acts as a stimulant for the immune system. All of its applications, in addition to its more well-known use as a sexual stimulant, give it an aura of a 'miracle cure' which, in addition to its limited production area,³² may explain its price.

Until recently, most of the scientific research into the composition and properties of yartsa gunbu had been carried out in China. However, as early as 1951, Cunningham, Manson, Spring and Hutchinson³³ discovered two principal constituents in the *cordyceps* they were studying: cordycepin (3'-deoxyadenosine) and cordycepic acid (d-mannitol), naturally occurring

nucleosides, which have beneficial effects on cardiovascular performance. After a decade of research in China, a variety of endoparasitic fungus of wild *Cordyceps sinensis*, *Paecilomyces hepiali* Chen, was isolated in 1982 and used in a fermented form. The technique used is extraction through hot water, or hot water and alcohol. The fungus then started to be cultivated on a rice substrate and used more widely in diverse forms in China, such as a dried powder, or water or alcohol extracts. *Jinshuibao* is a traditional preparation using the fermented product of the mycelium. It thus appears that the beneficial components are to be found mainly in the fungus, as the shell of the caterpillar's body is rarely mentioned in the research.

The anti-stress benefits of yartsa gunbu's components are related to the polysaccharides, adenosine and mannitol they contain, and to their effect on increasing glutathione peroxidase and superoxide dismutase, which are two enzymes that act as antioxidants and protect against oxidative stress in the human body. The research carried out in China and in the West, using cultivated forms of the *cordyceps* fungus, and involving different age groups and the use of placebos, has shown its beneficial effects on the lungs, kidneys, immune system, cardiovascular performance, memory and general energy response levels, especially in older people or sedentary people who are not athletes at the peak of their capacities.³⁴

Yartsa gunbu is readily available in capsule form on the Internet at prices that appear to be very affordable compared with the costs originally suggested for *Cordyceps sinensis* from the Tibetan plateau. This is due to the fact that the components used in this case come from laboratory breeding. This is explained, for example, on the website for the product 'ageLOC Vitality': "There are over 700 different types of similar cordyceps fungus and Nu Skin/Pharmanex has an exclusive rights to the cordyceps fungus which is most potent and found in Tibet. Our patented cordyceps are grown in hot houses rather than in the wild. If you were able to buy wild cordyceps you would pay more than \$2000 an ounce, double the price of gold."³⁵ On the Pharmanex website, the preciousness of the product is thus highlighted: "In ancient China, use of *Cordyceps sinensis* was reserved exclusively for the Emperor's Palace. Traditionally, *Cordyceps sinensis* was so rare it was worth more than four times its weight in silver."³⁶ The main ingredient is *Cordyceps Cs-4* Mushroom Mycelia hyphae powder, and the Chinese government's approval and recognition are mentioned as a quality guarantee:

Our exclusive Cordyceps® Cs-4® formula is recognised in China as the fermented cordyceps mushroom product, offering health benefits most comparable to the rare and protected wild mushroom of the Tibetan high plateau. Over 15 years of extensive scientific research resulted in this Cs-4® strain. In fact, Cordyceps® Cs-4® has been placed under intellectual property protection and boasts the only strain recognised by the Chinese government. Cordyceps® Cs-4® is manufactured according to the Pharmanex® 6S Quality Process and is standardised by HPLC (High Performance Liquid Chromatography) to guarantee potency and consistent results by supplying minimum levels of 0.14% adenosine.

One can question whether such a company really has exclusive ‘rights’ to the strongest active ingredient of the *cordyceps* mushroom found in Tibet and whether the one it grows in greenhouses is as strong as the original, but the company does refer to the high market price which is twice the price of an ounce of gold or silver, using it as a commercial argument. In addition, the company also refers to the research on yartsa gunbu by citing five scientific research papers.³⁷ Referring to “intellectual property protection” and asserting “exclusive rights” in the case of a natural product may be anathema to most environmentally conscious people, but it does seem to be an increasingly common trend in our current consumer and capitalist societies.

Increasing the harvest of yartsa gunbu on the Tibetan plateau does not yet seem to pose a problem in terms of resources. Nevertheless, there has recently been more awareness of environmental issues, and Winkler emphasises the need for more research and serious management of this resource.³⁸ In Bhutan, for example, an initial period of prohibition was followed by a licencing period in early summer 2004. However, the harvest can only be sold to Bhutanese resellers and auctions are organised by the government, which collects 10% of the sale. The main issue comes from a lack of equity due to the low level of education and information of the sellers who do not know the final price of their harvest. In Tibet, harvesting is often regulated by permits and authorisations, which aim to prevent outsiders from exploiting the resource. The sale, on the other hand, is more informal, and the price depends on supply and demand. Research on the sustainability of yartsa gunbu has effectively been carried out by two researchers from the Beijing Tibetology Research Center.³⁹ The report submitted in 2005 to the TAR government led to a conference in December 2006 and the establishment of a regulatory framework that forms the basis of a system for studying and protecting this plant resource.

The effects on the environment of over-harvesting might be felt in a possible imbalance caused by harvesting too early when the spores have not yet matured and have not yet been released. This could also affect the ecological balance of the plants, since fewer spores mean less yartsa gunbu and more larvae with a consequently higher consumption of kobresia roots. On the other hand, deforestation may also have led to the increase or expansion of the territory of this 'summer grass'. Winkler points to the expansion of the Tibetan nomads' grazing area, which seems to be contradicted by the forced sedentarisation of increasing numbers of nomads.⁴⁰ The effects of global warming may also have consequences for the production and exploitation of this natural resource. As already mentioned, the drought in Tibet in 2009 doubled its price and caused territorial tensions in Nepal, where production has increased.

Conclusion

The value of yartsa gunbu is particularly linked to the great demand in the Chinese market for aphrodisiacal products and to the use of traditional Chinese medicine. But the quest for vitality, health and longevity is also characteristic of Western societies. As with other animal- or plant-based products, this very particular 'summer grass' has great added value. One could compare it to other products such as drugs derived from plants, safran, rhinoceros horn, etc. But contrary to the case of the rhinoceros, which is in danger of extinction due to illegal poaching in Africa for the Chinese market, here the animal is not killed – the caterpillar, which the mushroom has grown in as a parasite, is already dead. This also makes it more acceptable to harvest it from a Buddhist point of view, despite the moral reservations some Tibetans may feel or express about this essential economic activity regarding their spiritual relationship to their environment. Nevertheless, it cannot be ascertained whether earlier and more extensive harvesting might have consequences on the reproduction cycle of the plant or on the environment.

The reproduction of this mushroom in laboratories remains uncertain due to difficulties in reproducing the very specific and extreme conditions of its natural habitat. But it is increasingly being marketed in the West as a nutritional supplement. Will more fair-trade networks develop in the future between Western retailers and Tibetan harvesters or wholesalers? Current political and health conditions, as well as international tensions, do not seem in favour of this type of economic development. In addition, there are also many fake specimens on the market aimed at tourists, which can

be made using plaster, flour, plastic, matches or lead, which has led to cases of poisoning.⁴¹ Quality controls and guarantees will become ever more necessary as online sales continue to explode.

Yartsa gunbu may have something more to teach us, in the end. The improbable and fascinatingly holistic nature of the product, which combines the animal and the plant (and the human) in a very specific and very fragile location, sharply contrasts with the massive environmental imbalance associated with a globalised market. This Tibetan ‘herb’ carries in itself a very particular lesson on interdependence: between a fungus and an insect, between an environment and its people, between Tibetans and Chinese, between health and money, and between one substance and multiple applications. Upon the timely death of a caterpillar rests the well-being and survival of many humans. But, first, the ‘summer grass’ must be spotted in the high ranges. This is unless, one day, humans make do with a possible chemical synthetic imitation on a planet where the high plateaux and pastures of Tibet no longer exist.

Notes

¹ T.V. Wylie, 1959. “A Standard System of Tibetan Transcription”. *Harvard Journal of Asiatic Studies* 2: 261-267.

² Daniel Winkler carried out 17 fieldtrips between 1998 and 2006 (in Ganzi Tibetan Autonomous Prefecture, Sichuan (1999–2004) and Nyingchi (Linzi) prefecture, TAR [Tibet Autonomous Region] (2005)). Many other Americans have also shown an interest in researching the supply sources of this natural resource.

³ Alessandro Boesi, “*Le savoir botanique des Tibétains: perception, classification et exploitation des plantes sauvages*” (PhD thesis, University of Aix-Marseille, 2004).

⁴ My research is based on works written in English, French and Tibetan, but I do not have direct access to Chinese sources due to my lack of mastery of the language. In this paper, I have chosen to use the Tibetan term *yartsa gunbu* (in simplified Tibetan phonetic transcription) to designate this Tibetan ‘herb’ as a deliberate linguistic choice.

⁵ “According to Gawā Dorje [‘Khrungs dPe Drimed Shel Gyi Melong. Mi Rigs dPe sKrun Khang, Beijing, 1995], another name for *Cordyceps sinensis* in Tibetan medicine is *tsa daji* (Wylie 1959: tswa da byid). A medicine known as *daji* (not *tsa daji*, however) is mentioned even earlier in the fundamental Tibetan medical text Gyū Zhi (also known as the ‘Four Tantras’; Wylie 1959: rgyud bzhi), composed between the 8th and 11th centuries and frequently republished (e.g. Yutog 2002). However, the identity of *daji* as *Cordyceps* remains controversial.” (Daniel Winkler, “Yartsa Gunbu (*Cordyceps sinensis*) and the Fungal Commodification of Tibet’s Rural Economy”, *Economic Botany*, The New York Botanical Press, Bronx, New York, 62 (3), 2008, pp. 291-305).

⁶ Daniel Winkler (2008) and Van Panhuys-Sigler (2013, p. 15).

⁷ "... the first record in China seems to be more than 200 years later in Wang Ang's 1694 compendium of material medica, Ben Cao Bei Yao (Grace Yue, pers. comm. 2005); a recent claim by Halpern (1999) that *Cordyceps sinensis* was mentioned in Chinese texts from the 8th-Century Tang Dynasty has not been substantiated." (Daniel Winkler, 2008).

⁸ Van Panhuys-Sigler (2013, p. 15).

⁹ Winkler (2008, p. 291-293).

¹⁰ Winkler (2008, p. 293).

¹¹ Winkler (2008, p. 293), Boesi and Cardi (2009).

¹² "Golden Worm", <https://www.youtube.com/watch?v=fJhzuiOT9w> (accessed 5 July 2020).

¹³ See Françoise Robin's online interview by Cyrielle Cabot, in "*Cinéma à Vesoul: l'émergence du septième art au Tibet Cinéma à Vesoul: l'émergence du septième art au Tibet*", <https://asialyst.com/fr/2020/02/21/cinema-vesoul-emergence-septieme-art-tibet/> (accessed 21 February 2020).

¹⁴ See the trailer at <https://www.youtube.com/watch?v=ZWRUUZtwmM0> (accessed on 5 July 2020).

¹⁵ See the Central Tibetan Administration's 2018 White Paper entitled *Tibet was Never a Part of China, but the Middle Way Approach Remains a Viable Solution* for a detailed report of the current situation of resource exploitation in Tibet (available online at <https://tibet.net>).

¹⁶ Daniel Winkler (2008, p. 293).

¹⁷ Emilia Roza Sulek, "Caterpillar fungus and the economy of sinning. On entangled relations between religious and economic in a Tibetan pastoral region of Golog, Qinghai, China", *Études mongoles et sibériennes, centrasiatiques et tibétaines*, 2016.

¹⁸ Information provided by a Tibetan exile who wished to remain anonymous and whose extended family lives in Derge. For the price of gold in 2016, see <https://sdbullion.com/gold-prices-2016>.

¹⁹ "Seven members of the Gorkha community were killed by villagers from the Manang district when they tried to harvest *yartsa gonbu* on the land of Nar village in order to resell it in Tibet for the Chinese market" (TibetInfoNet (TNI)/TibetPressHungary, 20 June 2009 – 3 July 2009, Tibet Support Association Sambhala Tibet Center site (Budapest, Hungary – accessed 1 November 2016).

²⁰ See note 18.

²¹ Patrick French, *Tibet, Tibet: A Personal History of a Lost Land*, Knopf, 2003.

²² *Tibet was Never a Part of China, but the Middle Way Approach Remains a Viable Solution*, White Paper, Central Tibetan Administration, 2018.

²³ Emilia Roza Sulek, "Caterpillar fungus and the economy of sinning. On entangled relations between religious and economic in a Tibetan pastoral region of Golog, Qinghai, China", *Études mongoles et sibériennes, centrasiatiques et tibétaines*, 2016.

²⁴ Harold Thibault, "Ce champignon qui hallucine la Chine", *Actualité Monde Asie*, 14 August 2015.

²⁵ The Tibetan term *digpa* can be translated as ‘negative action’ (or ‘sin’ as posited by Sulek). I would avoid using the term ‘sin’ which has specific connotations pertaining to the Christian religion, including that of guilt, that are not found in Buddhism which would rather refer to individual responsibility.

²⁶ ‘Om mani padme hum’ is the mantra of the Buddha of compassion and the most commonly recited mantra in Tibet. As a phonetic transcription from the Sanskrit, it can be translated as ‘Homage to the Jewel in the Lotus’.

²⁷ Emilia Roza Sulek, “Caterpillar fungus and the economy of sinning. On entangled relations between religious and economic in a Tibetan pastoral region of Golog, Qinghai, China”, *Études mongoles et sibériennes, centrasiatiques et tibétaines*, 2016.

²⁸ Sulek, 2016.

²⁹ Sulek, 2016. I was also informed that my Tibetan informant’s sister, who harvested yartsa gunbu, had died in 2019 but I have not yet been able to inquire about the cause of her death.

³⁰ Personal correspondence, 11 May 2020.

³¹ https://www.anastore.com/fr/articles/PC90_Cordyceps_Sinensis.php.

³² According to Daniel Winkler, 90% of the production of yartsa gunbu comes from the four prefectures of Nyingchi, Chamdo, Nagchu and Lhasa.

³³ Cunningham, K.G., W. Manson, F.S. Spring and S.A. Hutchinson, “Cordycepin, a metabolic product isolated from cultures of *Cordyceps militaris* (Linn.) Link.” *Nature*. 1950, 166: 949.

³⁴ <https://mushroomscience.com/cordyceps-cs-4/>;

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3110835/>;

K.G. Cunningham, W. Manson, F.S. Spring and S.A. Hutchinson, “Cordycepin, a metabolic product isolated from cultures of *Cordyceps militaris* (Linn.) Link.” *Nature*, 1950, 166: 949; Steve Chen, M.D., Zhaoping Li, M.D., Ph.D., Robert Krochmal, M.D., Marlon Abrazado, B.S., Woosong Kim, B.S., and Christopher B. Cooper, M.D., “Effect of Cs-4® (*Cordyceps sinensis*) on Exercise Performance in Healthy Older Subjects: A Double-Blind, Placebo-Controlled Trial”, *Journal of Alternative and Complementary Medicine*, 2010 May; 16(5): 585-590;

<http://www.webmd.com/vitamins-supplements/ingredientmono-602-cordyceps.aspx?activeingredientid=602>;

http://www.passeportsante.net/fr/Solutions/PlantesSupplements/Fiche.aspx?doc=cordyceps_ps#;

³⁵ <https://www.audioacrobat.com/note/CPnQzsXs>.

³⁶ https://www.nuskin.com/content/dam/global/au/library/pdf/au_cordyceps.pdf.

³⁷ K.J. Nicodemus, R.D. Hagan, J. Zhu and C. Baker, “Supplementation with Cordyceps Cs-4 fermentation product promotes fat metabolism during prolonged exercise”, *Medicine and Science in Sports and Exercise*, 2001: 33: S 164 (Abstract); S.M. Talbott, J.S. Zhu and J.M. Rippe, “CordyMax® Cs-4® enhances endurance in sedentary individuals”, *Medicine and Science in Sports and Exercise*, 2001: 33 (Abstract); J. Zhu, W. Yin, K. Nicodemus, et al., “CordyMax® Cs-4® improves glucose metabolism”, *FASEB J*, 2001: 15; J.S. Zhu, Y. Pei, Z. Xu, B. Wang and J. Rippe, “CordyMax reduces serum oxidized LDL-cholesterol and increases HDL-cholesterol in humans with reduced HDL-cholesterol”, 4-10-2003;

J.S. Zhu and J.M. Rippe, “CordyMax enhances aerobic capability, endurance performance, and exercise metabolism in healthy, mid-age to elderly sedentary humans”, *FASEB J*, 2004: 18(5): A931.

³⁸ Winkler (2008, p. 303).

³⁹ Winkler (2008, p. 303).

⁴⁰ *Tibet was Never a Part of China, but the Middle Way Approach Remains a Viable Solution*, White Paper, Central Tibetan Administration, 2018; Sulek, 2016.

⁴¹ “In 1996, a Chinese researcher reported two cases of lead poisoning from the consumption of cordyceps. It is therefore preferable to favor products that are subject to strict quality controls.” [author’s translation]

http://www.passeportsante.net/fr/Solutions/PlantesSupplements/Fiche.aspx?doc=cordyceps_ps#.

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THE ECOLOGY AND RECENT VALORISATION OF ROSEMARY IN THE NORTHERN REGIONS OF THE EL KEF GOVERNORATE IN TUNISIA

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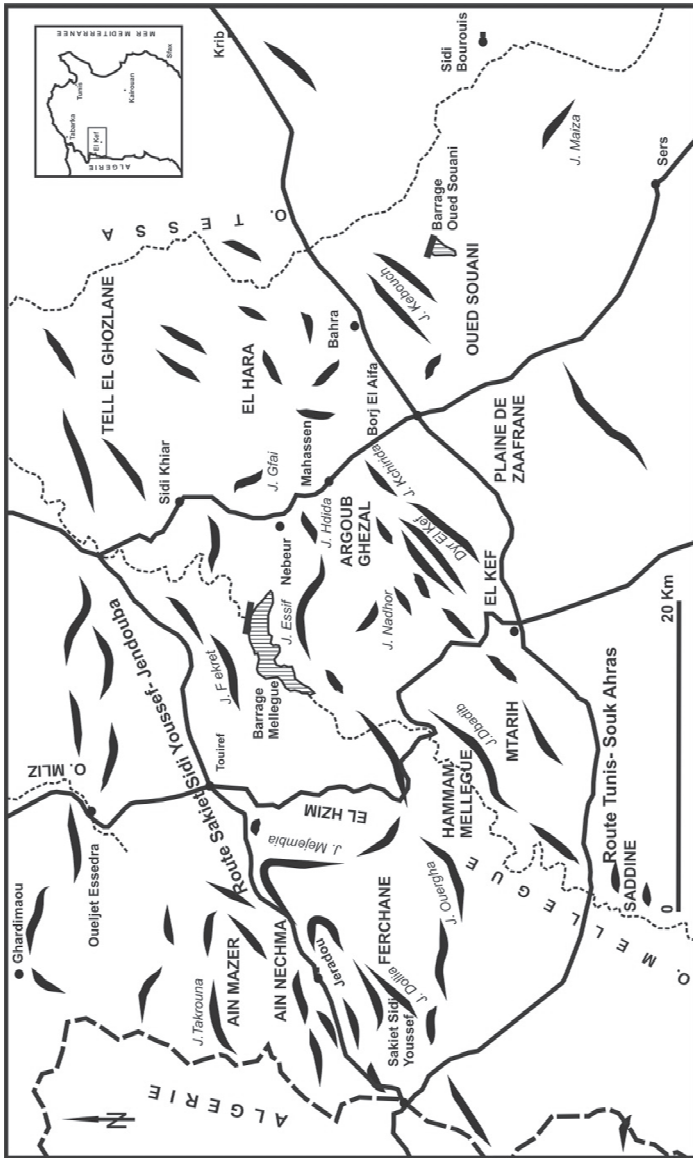
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Introduction

Rosemary (*Rosmarinus officinalis*) is an undergrowth labiatae herb, which grows on low woody vegetation of the Mediterranean forest (Beniston 1984; Abbas, Barbero and Loisel 1984). Rosemary has several symbolic meanings that go back centuries, and even millennia. In ancient Greece, rosemary was a symbol of love and friendship (Féry-Hue 1997; Beniston 1984). In Egyptian legend, the Virgin Mary laid her blue cloak on a rosemary plant to let it dry, which thus transmitted the lovely blue colour to the flowers. She is also said to have hidden behind a rosemary bush when she fled with baby Jesus into Egypt (Tudor Erler 1988). During the Middle Ages, rosemary was used to get rid of negative energy. To do this, it was often tucked under pillows to prevent nightmares and ward off evil spirits during sleep. In Arab civilisation, where it is named *Iklil*, it is cited in many poetry texts, from Baghdad to Al Andalus. In France, where it is considered as important as lavender plantations, it is called *Romarin* and it is used principally as a therapeutic and aromatic species. In Tamazight, the indigenous language in North Africa, rosemary is called *Yazeer*. Aside from its health benefits, *Yazeer* was believed to impart strength and success. In Morocco, it represents a subject of competition between harvesters and local communities in the Atlas and Rif chain.

In Tunisia, rosemary grows in the sub-arid bioclimate of the Frigian High Tell. This is the same region where the pinewood of Aleppo pine grows. Administratively, this territory is located in the north of the governorate of



Map 1: Map of the northern El Kef. Source: The Mountainous Ecosystems of the Western Frigian High Tell in Tunisia: Dynamics of the Population and Wastelands, *Journal of Alpine Research*, 107-1, 2019.

El Kef. The distribution of rosemary, its dynamics and its current state reflect the recent history and the level of pressure it has suffered. The concentration of the population on the slopes that are covered with forests and *matorrals*¹ has shaped forest landscapes and local natural environments through the removal of plant matter, especially from the underwood that encloses rosemary (Boudy 1948; Auclair et al. 1995). The biological characteristics of this plant give it an economic value. Because of its high oil concentration, rosemary is exploited as an aromatic and therapeutic plant. Despite the enormous potential of the High Tell region in terms of its rosemary, it remains underutilised because of the absence of traditions of distillation. In this text, we study the ecology of rosemary, the different forms of pressure on the plant formations to which it belongs and its mutations. Finally, we also study the exploitation and recent enhancement of rosemary in the pine forest north of El Kef.

Determining factors in the ecology of rosemary

All fields that study and experiment with plants, mainly biogeography, give a prime importance to the different elements of ecosystems. These elements determine the ecology of every species. In the Mediterranean forest, where these elements are very diversified including the variety of the climate, the extent of the same species differs from one location to another, and manifests many interruptions and changes in the physiognomy. Rosemary is one of the essential constituents of the Mediterranean forest of Aleppo pine in the northern region of El Kef, where it thrives on small and medium mountains.

The edaphic factor

Rosemary is almost indifferent to all kinds of soils in northern regions of the El Kef governorate. It thrives in karst substrates or marl, usually in rendzina soil, manure or even blackish soil with low thicknesses. It is tolerant to gypsum substrates but it shows low densities in these areas. On scree and in depressions, rosemary can reach high densities, as is the case on the sunny southern slopes of Mount Hdida and Mount Wargha. Here, the abandoned clearings provide optimal soil for the growth of rosemary, especially south of Mount Hdida where it forms a dense and widespread mat as a continuous line, similar to the lavender fields of Provence (Ayari 2019b).

Rosemary usually has an erect eroded shape formed by a mound between its stem and the upper part of its root system, but this humus horizon is lost when it grows in thick soils on sloping ground. In this case, its density decreases due to the absence of dead leaves and plant debris, which reduce the intensity of erosion (Raynal 1979). On rendzina soil, rosemary avoids erosion by settling in the cracks or between the rock strata and by taking advantage of a thin humus horizon or plant debris. On gypsum substrates, which contain the most degraded soils and are almost bare, as at Hammam Melleg, rosemary survives only under the shade of Aleppo pine trees with some rare other constituent species of the underwood.

In some locations where the soil has disappeared under active erosion dynamics due to overgrazing, rosemary can survive alone or with some species of thyme. We observed this situation in many karst sectors, like Ras Laayoon in the Tebessa mountains in the extreme east of Algeria, in a high sub-arid bioclimate.

The exposure factor

Exposure is a determining factor in the density and state of the vegetation in the Mediterranean forest. Rosemary represents an essential species of the underwood of the Aleppo pine forest and of its related transitional formations. Although rosemary shows very high densities on the shady sides, several locations still have significant densities even though they are on sunny exposures, as is the case on the southern slopes of Mount Hdida, Wargha and Twila. In several cases, rosemary excludes the majority of the constituent species of the underwood.

Based on the height and size of the rosemary plants, the exposure causes significant differences. In fact, rosemary reaches great heights on the shady slopes of the mountains of Wargha, Mount Hdida, Kboosh, Twila and Essif near Melleg dam. At the bottom of ravines and near rivers, it reaches its maximum height by taking advantage of the relative freshness, as is the case south of Melleg dam. On wet exposures, rosemary protects itself against strong sunlight under high woody layers during the dry summer season. However, on sunny exposures, the rosemary leaves dry up and can only persist with difficulty in the summer dryness accentuated by the sirocco wind. Under the high woody layers, the humid layers covered with foam and lichens store water during the wet season, allowing the alimantation of rosemary and underwood for a longer period. Whereas on sunny slopes dominated by sparse vegetation, intense erosion and degraded soil prevent infiltration of water that flows into the gullies instead.

Bioclimatic staging

If rosemary is indifferent to the altitude and bioclimates in the northern parts of the El Kef governorate, it prospers in the middle sub-arid bioclimate that corresponds to the extent of pure pine forest.² This floor is located between the lower semi-arid bioclimatic layer, which corresponds to the forest of Aleppo pine and red juniper, and the upper semi-arid layer, which corresponds to the forest of Aleppo pine and green oak. This property is based on phytosociological analyses that were carried out on the pine forest of the Western Frigian High Tell.

In the lower sub-arid bioclimatic layer, dominated by sparse formations, rosemary is a companion of the alpha grass (*Stipa tenacissima*) and white sagebrush (*Artemisia herba alba*) on rendzina and marly soils south of Mount Wargha, and champtre sagebrush (*Artemisia campestris*) and silver rockrose (*heliantemum lavandula ifollius*) on the gypsum substrata at Mount Dbadib. In the latter area, rosemary is in danger of becoming extinct, especially in sunny exposures characterised by extremely degraded soils.

By moving up from 300 to 400 metres in altitude in wet exposures, rosemary is found in its optimal bioclimatic environment, which corresponds to the sub-arid layer. This is noticeable in the woods of Mount Twila, Mount Hdida, Mount Kmim and their peripheries, or even in the form of underwood of the Aleppo pine forest where it forms a continuous ground cover with Montpellier rockrose (*Cistus monspelliensis*), in shrubland areas or in lower vegetation.

As the altitude increases, into the upper sub-arid bioclimatic layer, rosemary is also preponderant but in a spatially discontinuous manner. Its density decreases under dense forests and it is sometimes excluded by other demanding species in humidity. However, in lower formations it is characterised by significant densities and heights. The floristic diversity and adaptability of competing species reduce the importance of rosemary in this bioclimatic layer, except on sunny slopes where the vegetation cover is relatively sparse.

Overall, rosemary fits all kinds of substrata and soils, but its perfect ecology corresponds to the medium semi-arid bioclimate in wet exposures and cool valleys. In the pine forests of northern El Kef, it is the species with the highest ecological plasticity of all the ericaceous plants.

Various forms of population pressure on rosemary

Overgrazing

From the colonial period until recent decades, rosemary was among the most threatened species due to overgrazing. The concentration of the poor population on the mountains and the predominance of farming methods that are harmful to the secondary wood formations, which dominate the forest areas (Boudy 1948; Maurer 1996), along with several other practices such as voluntary fires intended to stimulate grass growth after convective autumnal rains, represent the main causes of rosemary's endangerment (Monchicourt 1913).

Rosemary formations are heavily frequented by livestock, especially during drought years, despite their obnoxious character. The lack of land that serves as pasture for livestock obliges landless and small-scale peasants to move their livestock to the sparse formations of rosemary. Nowadays, the high attenuation of the population densities of mountainous and forest areas represents a favourable factor for the regrowth of rosemary and the underwood, in particular on high and medium slopes, following the withdrawal of grazing areas from *douars*³ or population groups (Ayari 2019b). In this new context, rosemary persists on the forest fronts⁴ near *douars* and population settlements such as north of Mount Hdida, Kboosh, Twila and the Wargha mountains.

In the forest fronts, such as around livestock trails, rosemary becomes scarce under the influence of trampling and grazing. Due to its difficult regeneration, it gives way to nitrophilous species, especially rockrose that becomes dominant. Under the very dense sections of Aleppo pine forest that are rarely frequented by cattle, rosemary is also becoming scarce due to the high shade coverage of the trees and competition with other constituent species of the underwood that are well adapted to shady conditions, such as dyss (*Ampelodesma mauritanicum*), filaria (*Phylleria media*) and heather multiflora (*Erica multiflora*).

Various forms of rosemary harvesting

The use of rosemary as firewood has decreased sharply since the 1990s following a massive population transition from the slopes towards the plains, on the one hand, and changes in the practices of the population, on the other. Among these practices, we cite in particular the use of traditional pine ovens, which consume enormous quantities of underwood

and especially rosemary. In reality, it is not the use of rosemary for fuel purposes that is threatening the plant. It is rather the methods of its collection by uprooting its clumps⁵ that increases its endangerment. This uprooting was practiced by the work-sites combatting underdevelopment until the 1970s, for supplying rudimentary industrial ovens in painted lime throughout Oued Belhnech in the forest of Nibber where rosemary has already disappeared in some places.

Despite the politics of conservation, which manifests a certain severity like in other Maghreb countries where woody ecosystems have suffered from a high pressure of the poor population during contemporary history (Dyari 2003; Nouschi 1976), the forestry authorities have shown some tolerance towards the cutting of rosemary since its use by the population for firewood was inevitable near the *douars* and even in small rural communities. Nowadays, the use of firewood is generally in decline following the accentuation of the rural exodus, on the one hand, and the market-access of the population, which has increased the level of consumption, on the other. This improvement is manifested through the use of butane gas and the substitution of home-made bread prepared in traditional ovens by bread baked in modern bakeries.

Reforestation

A significant number of the areas with rosemary are affected by the reforestation programmes developed between the 1960s and 1980s in the north of El Kef. The main works of these actions are manifested mainly through the infiltration benches intended for the Aleppo pine plantations. These have moderated erosion, and allowed rosemary to regenerate and thrive between the rows of Aleppo pine, especially in the mountains of Essif, Twila, Kboosh, Kimim, Maïza and on the south side of mount Fekret. Besides the role of infiltration benches, rosemary has benefitted from conservation work and the protection of reforested areas. In areas where reforestation has failed, as is the case on the sunny slopes of Mount Hdida and Mount Fekret, the bowls intended for plantation have sheltered the young rosemary shoots instead.

In contrast, in the densely reforested areas of Aleppo pine and cypress (*Cupressus sempervirens*), especially on deep soils, rosemary is virtually absent in the underwood under the shade of tall trees. Under the dense reforestation of cypress in different types of soil, rosemary is completely ruled out of the loop along with the other underwood species, as is the case in the reforested areas in Kudiat Sidi Amor to the west of Mount Kboosh

and the north of Sakiét Sidi Youssef. The soils of these plantations are covered by a layer of dead leaves of cypress.

Despite the importance of rosemary potentialities in the forest areas of northern El Kef, the lack of distillation tradition in this region means this wealth is abandoned and will only become valued with the arrival of the transhumant operators of Mount Wesslet.

The transhumance of Wesslat and the recent valorisation of the exploitation of rosemary in the Northern regions of El Kef

Historical origins of the cultivation of spontaneous aromatic plants in mountainous communities of Mount Wesslet

The inhabitants of Mount Wesslet have created typical relationships with steppe plants, which provide a livelihood in the harsh, sub-arid climate environment where resources are scarce. The Wesslets suffered from the impact of the revenge taken by the Turkish Beylical authorities after the defeat of their alliance during the civil war between Hussein Ben Ali and Ali Bacha, the son of Ben Ali's brother. The perched villages of Mount Wesslet, which were "eagle's nests" (Frémont 1969) inhabited by rebels and opponents during the period of Turkish colonisation, were attacked and defeated by the army of Hussein Ben Ali's sons. A book by Mohamed Sghir Ibn Youssef, known as "Mashra'", provides a detailed description of the barbarity of that revenge incident and of the departure of the Wesslets for the diaspora when they were dispossessed of their land and properties. He said that "They left their natal mountain without knowing where they are going or to which country they are going...until they joined Beja, El Kef, Testour and the territory of some tribes like those of Mount Amdoon. In the Sahel they worked in harvesting olives" (Ibn Youssef 1900).

The mountainous and steppe communities of the Wesslet tribe have accumulated expertise in the exploitation and distillation of aromatic plants, especially rosemary. This plant, with its therapeutic and aromatic properties, is also favoured for its hygienic properties as it can repel insects, such as mosquitoes and flies. It is also used in the preparation of different milk derivatives, and in the fermentation lids of milk and cheese.

The diasporas of Mount Wesslet, dispersed across the mountain lands of the High Tell in the Tunisian Steppe and even in the extreme east of

Algeria, have adapted to the lifestyles of the new territories by practising small-scale cereal farming and breeding. Those who did not leave Mount Wesslet and its surroundings continued to exploit plants, especially rosemary. The over-exploitation of local rosemary resources, and the adoption of a policy of conservation and restoration of forest ecosystems, have incited the forest administration to auction off the rosemary forest plots.

Recently, new movements of transhumance from Wesslatiya for the exploitation of rosemary have appeared. The main destinations of these movements are the forests of the High Tell and the Dorsal chain in western Tunisia. These movements have allowed the transmission of the Wesslets' expertise to other regions, where they will extract the oil of other species such as thyme and myrtle.

Potentialities and yields of rosemary in oils

We spoke to an operator tenant who cultivated rosemary, originating from Mount Wesslat in the Tunisian Dorsal, among one of the most experienced communities working aromatic forest species (Frémont 1969), whether for the distillation of forest oils or the aromatic tar industry based on cypress or Aleppo pine.⁶ This operator tenant of the forests of Mount Hdida and Mount Essif in 2008 presented valuable information with regard to the estimation of the rosemary potential in oil and in terms of the qualitative typology of this species. The forests of El Kef contain the most important sites for rosemary in Tunisia, but the exploitation of these resources is only recent because of the low rate of concentration in oil compared with the forests in other governorates, namely those traversed by the Dorsal Chain such as Kairwan, Kasserine and Zaghwan which have steppe bioclimates which are less rainy than those of the High Tell.

The potential quantification of rosemary oil areas shows a decisive role in the structure of the vegetation. Generally, a ton of rosemary leaves produces 180–200 kg of oil. For rosemary covered by a layer of Aleppo pine trees, a ton of leaves gives 200 kg of oil. For leaves cut from *matorrals* and formations not covered by a layer of Aleppo pine trees, a ton of leaves produces 250–300 kg of oil. Therefore, it is noted that rosemary without shade is characterised by a higher concentration of oil.

Although operators can quantify the potential and performance of different types of vegetation in terms of rosemary oil or leaves, they are unable to provide a precise quantification of the productivity of a hectare in oil or

even in rosemary leaves because of the selective cuts practised by the pickers. These pickers are poor residents of the forest and its surroundings. They freely cut the branches of rosemary with their sickles, but they must sell their harvest to tenants in the forest. A general quantification is possible for an entire forest but not per hectare, depending on the person interviewed. For example, the forest of Mount Hdida which contains many areas on a very steep slope can produce 70 tons of rosemary leaves. The forest of Mount Twila, however, is less extensive but more accessible; it can produce 180 tons. The proportion of the exploited land of Mount Hdida can be estimated at around one quarter of its total area. This can be compared with Mount Twila, where half of its total land is operated due to its good accessibility for the operators and horses used to transport the crops.

These estimates by the operators indicate the role of accessibility in determining the yields of a forest in rosemary leaves and oil. This is because the residents who cut the branches on behalf of the forest tenants frequent the areas that are more accessible to horses. The poor condition of tracks due to their not being well maintained, or even the complete absence of tracks, represents a real obstacle to gaining access to the heart of the forest in a van. Therefore, this means that operators cannot establish points for the collection and drying of the leaves. However, the existence of tracks that provide access to these places increases the quantities that can be harvested and allows those living near the forest to collect the majority of the local wealth in rosemary.

The extraction of rosemary oil starts in mid-March, but there is a problem declared by operators in relation to a profitability deficit – as at the forest of Mount Twila, for example – which limits the activities to cutting green branches and drying the leaves. Specifically, 800 kg of cut branches, which is the quantity needed to fill a distillation bowl, yields only 2 kg of rosemary oil, which sells at a price of 20–25 Tunisian dinars per kilogram. In parallel, the price of 100 kg of branches is 3–5 Tunisian dinars. Note that the price of these branches varies between 3 dinars in the spring season during which the rosemary contains more water and 5 dinars in the summer season during which its weight is lighter, which forces the operators to increase its price. Considering the real cost, the deficit becomes clearer. Indeed, if we add 20 dinars as the labour cost for the workers who perform the distillation to the material cost of 40 dinars (price of 800 kg of branches), the result – according to an interviewed operator – would be in deficit in the governorate of El Kef. In contrast, the operator indicated that it is beneficial for the High Steppes, as in the

example of the Kairwan governorate where the same quantity of branches required to fill a distillation bowl yields 4–5 kg of rosemary oil. At Mount Salloom in Kasserine, 4–5 kg of oil can also be produced from the same quantity of branches but, in reality, the actual figure is only 1 kg due to the lack of labour force required for picking. For this reason, the dry rosemary is exported to foreign markets and the green rosemary is distilled by the operators.

Techniques and difficulties of the exploitation of rosemary

The picking season for rosemary is generally from 20 May to mid-September, which almost coincides with the season of forest fires. The end of the operating season depends on the autumn rains, which disrupt the drying of the leaves.

After the rosemary branches have been collected, they are exposed to the sun on a polyethylene sheet to dry out. The cover acts as a ground sheet onto which the leaves fall after drying out. The sheet also helps with drying the leaves by reflecting the incident solar energy. Then, the workers use a rake to separate the leaves from the sheets. Dried leaves are separated from any impurities, especially Aleppo pine leaves. The twigs are sometimes used for firewood in traditional bread ovens. The scarcity of their use as firewood is explained by their very low energy output and high combustibility. After the first autumn rains, the branches accumulated near the drying points are burned.

The absence of machines to separate the rosemary leaves from different kind of impurities forces new operators to export their raw crops abroad without extracting the oil, or to sell their crops to experienced operators who also own distillation equipment.

In addition to the various difficulties mentioned above, the exploitation of rosemary has recently met with dissatisfaction from beekeepers who rely heavily on this plant to provide the richness of their honey. Due to the expansion in beekeeping in the last decade among young people in the area of Nibber and also due to the reputation of the honey made from rosemary, there has been controversy regarding the impact of the rosemary cuts, especially during years with a deficit in rainfall which force the beekeepers to move their hives to distant places. Rosemary cuts are generally made every two years but the new strains fail to bloom the following year, according to the beekeepers.

The frequency of forest fires, particularly after the Tunisian revolution, forced the forest administration to defend several burnt areas. Certain areas that contain most of the rosemary resources have been spared from any kind of exploitation, such as the regions of Ain Mazer and Takrouna in the mountains of Ouergha on the Tunisian–Algerian border, Mount Gfai and Mount Kboosh. These forest fires disrupt the transhumant operators who dry the rosemary.

Operational relationships in the rosemary chain

The rights to the exploitation of formations of rosemary are put to public auction and go to the highest bidder. There are six large operators of rosemary in Tunisia, but the actual exploitation is carried out by small operators who are tenants in the forests. The latter sell their aromatic products to the larger operators. The rental value of rosemary forests is around 4.3 Tunisian dinars (€1.5) per hectare. For example, the entire floor of the forest of Mount Essif and Mount Hdida is rented for 10,000 Tunisian dinars (€ 3,300) but the tenants are no longer able to work on all of the areas available.

The accessibility to the forest determines the number and location of the drying points, and therefore the exploitation capacity. For Mount Hdida and Mount Essif, limited accessibility means that there are only three drying and collection points. These dryers are located: south of Mount Ain Hammam, where rosemary cut by 40 workers is collected; at Mount Essif, which employs 38 workers although this number usually decreases to only 4 at the end of the collection season; and at Nibber Gare, which employs 17 workers. The reduction in the number of workers used for the collection of rosemary is not a choice by the operator but rather a choice by the workers who withdraw from this activity as soon as the required quantities are available in nearby and more accessible areas. It is rare to continue picking in the areas that are distant and inaccessible to horses. For example, the majority of the land at Kudiat Jimla and almost all of the land to the south of Mount Hdida are not exploited for this reason, despite the riches that they contain.

Despite the importance of the rosemary resources in the El Kef governorate, there is no tradition of distilling rosemary at the local level. Rosemary exploitation is carried out by forest tenants, who only recruit a few skilled workers from their region of origin. For this reason, the tenants find themselves obliged to transmit their knowledge to some of the local population who work at the dryers. The total number of skilled workers

recruited by the tenants of the forests of Mount Hdida and Mount Essif is just 12. These operators benefit from the knowledge of the local workforce regarding the tracks and access to places in the forest. The exploitation of rosemary in a forest is greatly dependent on this access. The operators only work in picking rosemary if there is an acceptable profit level. This depends on the price offered by operators, who in turn are also dependent on the prices offered by wholesalers who monopolise the market of forest oils and therefore determine the market rates. At present, knowledge about distillation is transmitted by Wesslets to other regions, including Kasserine on the western side of the High Steppes.

Conclusion

The large areas occupied by rosemary in the northern regions of the El Kef governorate have improved significantly, by transforming the plant from a source of firewood used by the local population into a source of wealth that creates seasonal employment through its recent valorisation by extraction of the oil for aromatic and therapeutic uses. Unlike traditional destructive practices, such as the uprooting of tufts of rosemary, there are now new non-destructive practices, such as the regular cutting of branches. The north of El Kef represents an optimal terrain for the prosperity of rosemary and its regeneration, especially after the reduction of pastoral pressure on the forest environments. But the absence of a tradition and knowledge of distillation prevents the exploitation of the enormous potential of this wealth. In addition to complications linked to workforce shortages and the exclusivity of this supply channel through migrating operators, the exploitation of rosemary also faces problems related to beekeeping in the last decade, because this activity is dependent on the plant to provide the richness of its honey.

Notes

1. This is a Spanish word meaning secondary wood formation that follows the forest stage in the Mediterranean forest.
2. The pine forest with Aleppo pine and rosemary is considered a pure pine forest.
3. A *douar* is an elementary unit of grouped population less than the size of a village.
- 4 The forest front is the border between the forest and the agricultural area.
5. This harvesting method of rosemary, which threatens the regeneration of this species, is a subject of conflict between associations of development and operators in the region of Seyss-Fez in northern Morocco, according to a discussion with the Moroccan activist Sidi Aziz Al Idrissi in Rabat. The transfer of the rights to

rosemary exploitation to the local population provides important opportunities for employment.

6. The population of Mount Wesslat in the Dorsal chain is the most experienced community in the distillation of aromatic oils. During the co-operative period, the state created a co-operative for the distillation of rosemary. After the decline of co-operative politics, the co-operators began transhumance to other regions where rosemary expanded, namely in the High Tell and Dorsal chain.

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AUX FRONTIÈRES DU KHAT : CETTE - MAUVAISE - HERBE DE L'AUTRE

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Mâcher les feuilles de khat à la recherche de leurs propriétés stimulantes a longtemps été circonscrit aux populations musulmanes de l'est éthiopien. Aujourd'hui, les feuilles sont cultivées à Madagascar, elles sont effeuillées par des chrétiens orthodoxes à Addis-Abeba, elles sont négociées auprès de vendeuses chinoises à Canton et discrètement ruminées à Londres. Malgré les prohibitions nationales, en tissant leur treille à travers le monde, en passant d'une économie domestique à une économie de rente, ces feuilles ont été érigées comme autant de frontières sociales et politiques qui (re)dessinent des lignes de tensions et des rapports de force tant dans leur berceau végétal qu'à l'échelle du pays et à celle internationale.

Dans une perspective diachronique, à partir des travaux menés par Abraham Krikorian (1984) et Ezekiel Gebissa (2004, 2010a, 2010b), nous retraçons les circulations khat : celles en Éthiopie, d'abord, où il s'est extirpé tardivement de sa gangue d'origine tandis qu'il a vite caboté de comptoirs en comptoirs dans la Corne musulmane de l'Afrique ou vers le Yémen et Madagascar ; puis nous emboîterons le pas au khat vers l'Amérique du Nord, l'Europe et jusqu'en Océanie où sont installées les diasporas, notamment éthiopiennes et somaliennes. Il s'agit ici d'esquisser une cartographie non exhaustive du khat en écho avec les conditions pragmatiques qui dopent ses expansions – saturation foncière, chute des cours de café, développement des modes de transport, contestation de la jeunesse, émigrations massives – et avec celles qui lui font entrave – à savoir la multiplication des prohibitions² que des exportateurs s'évertuent à déjouer malgré les risques de saisies (Anderson *et ali*, 2007 ; Lesourd, 2019).

Nos enquêtes de terrain³ montrent que ces circulations et leurs entraves transforment les représentations sociales du khat en influant sur sa valeur affective : toujours décrié par les uns mais encensé par les autres, le

rameau œuvre comme un marqueur de frontières (Barth, 1998), porteur de (re)crystallisations communautaires en réinventions permanentes. Amharas, Oromos, Somalis⁴, chrétiens orthodoxes, musulmans « d'ici » *versus* musulmans aux pratiques venues d'Arabie Saoudite, ces antagonismes identitaires sont d'autant plus vigoureux que les trajectoires globales ont bouleversé la valeur financière du khat. Ainsi, les revenus générés, et leurs acteurs, doivent être surveillés, contrôlés, car, vue du pouvoir central éthiopien, la sève du khat a parfois encore le goût des luttes régionalistes d'hier tandis que, dans la lorgnette de la *War on Drugs* américaine, on dénonce ses relents menaçants pour les sécurités nationale et internationale (Beckerleg, 2009 ; Carrier, 2008 ; Anderson, 2011 ; Klein, 2013).

De Harar à Guangzhou, le khat sur un marché globalisé

Alors que leurs pères cultivaient le khat pour leur consommation personnelle et/ou pour alimenter un marché localisé peu lucratif, aujourd'hui les producteurs affirment que « tout le monde fait du khat ! ». En 50 ans, la superficie agricole destinée à l'arbuste est passée de l'équivalent du département de Paris à un territoire aussi grand que le Rwanda et la production annuelle atteindrait les 800 millions de kilos (Anderson, 2007 : 22) pour satisfaire les 20 millions de mâcheurs dispatchés en Éthiopie et dans le monde (Al-Motarreb, 2002).

Un arbre – longtemps – enraciné dans l'Éthiopie orientale

Au début, la culture du khat a été fortement et jalousement gardée et de sévères peines ont été infligées à toute personne [de la ville d'Harar] donnant une plante de khat à des Kotu ou Galla [oromo] [...] Néanmoins, ces recherches [pour contenir le khat] ont été vaines et la percée définitive de la diffusion du khat vers les populations Gallas a eu lieu seulement après la bataille de Chellenko en 1887, une bataille où de nombreux Hadéré [habitants de Harar] ont perdu la vie [...]. Beaucoup ne sont pas revenus à leurs plantations de khat, et les femmes veuves, incapables de le cultiver, ont pris les Kotu [oromo] en tant que locataires. Les Kotu avaient donc désormais accès au khat et beaucoup l'ont donné à leurs proches pour le cultiver également [Amare Getahun et Abraham Krikorian, 1973 : 356]

Le privilège des hommes pieux de la forteresse

Cette échappée du khat, doux monopole des habitants de la citadelle d'Harar, est-elle une tradition orale formalisée au 20^e siècle ? La question se pose mais privilégions plutôt l'hypothèse que cette victoire de Ménélik

Il à Chellenko sur l'occupant égyptien signe la sortie du khat d'un *happy few*, sans doute celle des hommes pieux et des notables, et qu'elle construit plus assurément encore les jalons d'une expansion à venir du khat car cette victoire militaire engage « l'intégration » de la ville et de la région à l'empire éthiopien (Ezekiel Gebissa, 2004). En effet, dès 1887, Ménélik signe un accord avec les Français qui donne naissance, après dix ans de travaux, au chemin de fer franco-éthiopien destiné à acheminer le café et les peaux vers le port colonial djiboutien. Sur ces trains, quelques décennies plus tard, le khat circulera de Dire Dawa, vers Addis Abeba et vers Djibouti.

L'empereur distribue également des terres aux officiels du pouvoir et à une population amhara déplacée depuis le nord de l'Éthiopie pour venir occuper l'espace conquis. Cette dépossession, compte tenu de la croissance démographique forte, cantonne les habitants – oromos majoritairement – sur les terres lignagères qui, divisées par héritage, se restreignent de génération en génération. Cette pression foncière orientera les paysans à faire des choix de cultures toujours plus « rentables », à commencer par celle du café (Ezekiel Gebissa, 2004).

En effet, à partir du début des années 1910, le gouverneur de la ville d'Harar Tafari Makonnen – futur Haïlé Sélassié I^{er} – exhorte la paysannerie et les propriétaires terriens à parier sur l'or noir autour duquel l'État tisse un réseau de transport routier toujours plus dense pour en faciliter l'exportation. Autant de voies de communication qu'empruntera très vite le khat pour sortir de sa gangue orientale.

Enfin, comme le met également au jour Ezekiel Gebissa (2004), les années 1950-1960 sont marquées par une hausse significative de l'emploi – dans l'administration et dans les activités de commerce –, synonyme de revenus réguliers permettant aux hommes de s'offrir des bouquets de khat pour le repos du vendredi et les grandes occasions (mariage, baptêmes, enterrements, fin de ramadan).

Ainsi, les circonstances indispensables à une future diffusion plus nationale du khat sont réunies mais pour l'heure, il reste lové dans sa région d'origine prisée des populations musulmanes – des Hararis, Oromos, Somalis – et tenu à distance par les chrétiens orthodoxes (Krikorian, 1984 ; Gebissa 2010b) qui le considèrent comme cette « chose du diable » (Rodinson, 1967 : 67)⁵.

Des jeunes en campagne

À la chute d'Haïlé Sélassié (1973), le régime d'obédience marxiste (*derg*) dirigé par Mengistu impose un couvre-feu qui « mit un terme définitif à toute vie nocturne dans la capitale. Il dura 18 ans sans discontinuer, jusqu'en 1992, un an après la chute de la dictature » (F. Falceto, 2002 : 730). En ces temps de « censure, intimidation, propagande et exil » (F. Falceto, 2002 : 730), mâcher le khat sert de prétexte aux jeunes pour se rencontrer à l'abri des salons : « on se retrouvait le soir chez un ami, cigarettes, khat [...] j'ai commencé à khatter comme ça, avec le couvre-feu » (I.B., un consommateur, Dire Dawa, mars 2015).

De même, le khat séduit ces étudiants de la capitale envoyés en milieu rural pour officiellement éduquer les masses et expliquer la réforme foncière aux paysans (1974-1977). L'historien Ezekiel Gebissa souligne qu'au retour de cette campagne de coopération pour le développement [*zemecha*], nombre d'entre eux – quelles que soient leurs origines sociales et leurs confessions religieuses – ont conservé et transmis l'habitude du masticatoire. Même si la verte consommation demeure interdite, le khat emprunte alors le train et les routes en direction de la capitale.

Je khatte depuis quelques années, j'ai commencé quand j'étais étudiant à l'université, pour réviser ; le khat nous tenait éveillés pendant la période des examens, on pouvait se concentrer, veiller la nuit et préparer les examens. [...] À l'université, les jeunes, qu'ils soient amharas ou oromos, ils khattent, il n'y a pas de différence. (J., un consommateur, Dire Dawa, février 2014)

Le profil des consommateurs évolue, les mâcheurs se multiplient et les cultivateurs aussi. En effet, la nationalisation des terres réduit encore les superficies cultivables par ménage : les paysans cherchent donc à survivre d'autant que, dans le contexte d'une économie extrêmement encadrée par le régime, les prix des denrées, dont ceux du café, sont fixés au plus bas. Les paysans misent donc sur le khat estimé toujours plus lucratif (Gebissa, 2004). Enfin, dans les années 1980, un autre facteur vient inciter à la phyto-conversion : la famine qui sévit en Éthiopie (1984) entraîne, via l'aide internationale et la contrebande, l'arrivée de produits alimentaires (pâtes, riz) qui, par ricochet, engendre un abandon des cultures vivrières (Gebissa, 2004, 2010b). Les terres ainsi libérées des contraintes d'autosubsistance sont utilisées pour faire pousser du khat à vendre dans la région, dans le pays et, de plus en plus, à Djibouti.

Une consommation « transculturelle » ?

Après la chute du *Derg* (1991), le gouvernement s'essaie à des promesses de libéralisation économique et de démocratisation. Mais dans un contexte d'involution agricole, alors que le tiers des ménages ruraux est qualifié d'« indigent » (Dessalegn Rahmato, 2007) et que les cours du café continuent leur chute, le khat, lui, s'étend⁶ et ce d'autant mieux qu'il profite de la libéralisation des transports, du développement des infrastructures routières⁷, (Gebissa, 2004) et de l'essor d'*Ethiopian Airlines* qui multiplie les possibles voies du khat dans le ciel, sur lesquels nous reviendrons.

Ainsi, dans les années 1990, 571 tonnes de khat prennent chaque jour le chemin d'Addis Abeba (319 en 1980), soit une consommation de 52 kilos annuelle par habitant (Gebissa, 2010), soit presque 1 kg de khat (2 fois plus qu'en 1980) consommé chaque semaine par individu de toutes confessions religieuses. Dans son travail, le chercheur Biaya Tshikala (2000) rend compte que le khat se généralise alors avec le retour des jeunes soldats et miliciens démobilisés – dont on peut affirmer que l'habitude masticatoire a été prise sur le front pour donner du nerf à la guerre⁸. Selon lui, le rameau devient le marqueur d'une culture jeune qui refuse l'ordre moral imposé par la société et l'Église orthodoxe. La mastication agit comme un défi au pouvoir autoritaire⁹ et, de fait, comme une marginalisation : « Ces *balégués* [vauriens], *douriers* [bandits] – ne font rien, ils ne travaillent pas, ils volent pour payer le khat [...] » (Un voisin, octobre 2013, Addis Abeba). Ce type de propos fait montre d'un lien encore lancinant entre khat et mauvaises manières, malhonnêteté, folie, immoralité et désobéissances. Néanmoins, le khat continue toujours sa course auprès d'une jeunesse « rebelle » (Mains, 2010 : 53) aussi bien dans les quartiers populaires qu'au pied des tours de verre et des villas de la jeunesse dorée.

En 2012, à Bella – quartier populaire majoritairement chrétien orthodoxe – une seule boutique en tôle ondulée, située sur une piste cabossée, commercialise une seule variété de khat, le week-end uniquement. Pour que les jeunes puissent prolonger sous l'effet du khat les effets de l'alcool. Deux ans plus tard, bien visible sur la route goudronnée du quartier, trois boutiques sont dédiées au khat et proposent plusieurs qualités, tous les jours. (Observations personnelles)

À Bolé, il y a des endroits discrets, on y rentre que si on te connaît, si tu es un habitué ; là-bas, il y a les fils à papa, les enfants des parents riches, ils vont dans les écoles les plus chères, et entre jeunes [sous-entendus

Amharas], ils se retrouvent pour khatter, c'est la mode [...] ils ne peuvent pas le faire chez eux. (T., un consommateur, Addis-Abeba, avril 2012)

Enfin, mentionnons l'émergence d'un autre public : un public féminin. Selon les données officielles¹⁰, il serait marginal avec 12% des femmes contre 27% des hommes sur l'ensemble du territoire. Néanmoins, relevons d'une part que le pourcentage de femmes qui ont eu une consommation régulière (au moins 6 fois sur les 30 derniers jours) serait passé de 43 % en 2011 à 65 % en 2016 : les femmes qui mâchent, le feraient donc de plus en plus souvent. D'autre part, il faut tenir compte que la mastication féminine, surtout celles des jeunes filles est socialement réprouvée (Oorschot, 2013 ; Beckerleg, 2008 ; Lesourd, 2019, 2020) donc peu quantifiable par « sondage officiel » :

Les garçons peuvent parfois brouter avec leurs parents, moi, je dois me cacher. Je khatte avec mes copines une ou deux fois par mois. On se réunit dans l'un des appartements, quand les parents sont absents, et après c'est la psychose de savoir si on n'a pas laissé de traces ! On va jeter les branches et tout ce qui reste de preuves dans des poubelles à l'extérieur, parfois même à plusieurs rues [...] jamais nos parents ne doivent l'apprendre, ils ne doivent pas imaginer que l'on touche au khat, alors qu'eux, oui, oui, ils khattent [...] Que je vienne ici [à Dire Dawa] en vacances ou que je sois à Londres [où elle est installée avec sa famille], je me cache. (A., étudiante à Londres, Dire Dawa, avril 2013)

Une treille mondiale

Un musulman d'Abyssinie [...] est allé au Yémen et s'est présenté au souverain qui le prit en confiance. L'Abyssin, après avoir supplié le roi d'exiger quelque chose de lui, a été invité par le roi à lui rapporter quelques pousses tendres de khat [...] L'Abyssin envoie promptement quelqu'un à pied en Abyssinie pour aller chercher un plant. La bouture a été plantée au Yémen et elle a bien poussé [cité par A. Krikorian 1984, p.137]

Les feuilles de Dieu

L'extrait ci-dessus tiré de l'ouvrage *Masalik al-absar* de Ibn Fadlallah al-'Umari, probablement écrit entre 1342 et 1348, alimente les incertitudes sur les origines du khat – d'Éthiopie ou du Yémen ? De ces incertitudes, retenons l'ancienneté des circulations de part et d'autre de la Mer Rouge, entre communautés musulmanes. De même, de comptoirs en comptoirs,

des ouvriers yéménites et comoriens, musulmans, implantent l'arbre au Nord de Madagascar au début des années 1900 puis :

La consommation du Kat fut introduite aussi chez les Tankarana, peuple du nord de la Grande Ile, qui adoptèrent l'islam en 1841. La prise du Kat ne semble se répandre qu'en milieu musulman, peut-être plus disposé, par tradition religieuse à faire usage d'excitants non enivrants [L. Molet cité par Ch. Radt, 1969 : 218]

Certains parlent du khat comme d'une « *arme géniale d'islamisation* » mais nous pouvons considérer plus sûrement que sa diffusion s'est plus précocement effectuée en dehors de l'Éthiopie, en suivant les routes commerciales d'une cartographie confessionnelle précise, vers Djibouti, la Somalie – où la plante est importée mais pas ou peu cultivée – le Yémen, les Comores, Madagascar et le Kenya – des pays producteurs et consommateurs¹¹.

Cette mobilité à caractère religieux n'est plus aussi prégnante aujourd'hui ; cependant des rémanences islamiques méritent d'être questionnées. D'après les exportateurs de Dire Dawa, 32 000 tonnes¹² partent chaque jour vers le Somaliland où, selon l'anthropologue Peter Hansen, brouter désormais s'y conjugue sans référence à l'islam. Notons cependant avec lui que le monopole de ce commerce est aux mains d'une société nommée 571 : à Dire Dawa, nos interlocuteurs expliquent que ce chiffre renvoie au numéro de la licence d'exportation de la société mais, du côté des consommateurs au Somaliland, Peter Hansen (2010) explique que 571 est associé à l'année présumée de la naissance du prophète Mahomet. Cette interprétation plus religieuse qu'administrative rend compte, selon nous, que dans les représentations sociales, les feuilles, et leurs circulations, renvoient toujours à l'islam et peut-être plus particulièrement à sa voie soufie. Du côté des dirigeants de la 571, on ne peut présumer que labéliser religieusement le khat réponde à une stratégie marketing mais notons que la concurrence joue sur ces représentations puisqu'une autre marque de khat, spécialisée dans le circuit Éthiopie-Somaliland « a été commercialisée sous le nom de B611, qui fait référence à l'année où le prophète Mahomet a reçu sa première révélation » (P. Hansen, 2010 : 593-594.)

Les feuilles de l'exil

À partir des années 1990, la production est fortement dopée par la demande à l'étranger des diasporas éthiopiennes, somaliennes, kényanes et yéménites. Le bouquet suit leurs trajectoires à commencer dans les camps de réfugiés somalis dans la Corne de l'Afrique. Au-delà, il circule le plus

souvent illégalement : dans la péninsule arabe, vers les Émirats Arabes Unis et l'Arabie Saoudite ; en Europe, principalement vers les pays scandinaves et la Grande-Bretagne ; en Amérique du Nord, vers les États-Unis et le Canada ; en Asie, vers la Chine. En Océanie, vers l'Australie et la Nouvelle Zélande.

Pour (...) nos pères, c'est le seul moyen de se reposer et de se relaxer. Il y a tout à Londres, tu peux te relaxer autrement ! Mais non, le week-end, la seule chose qu'ils veulent c'est khat, être entre eux, comme s'ils n'étaient pas là-bas [...] pour eux, le khat c'est être un Somali [...] Pour moi ? oui brouter, c'est être Somalie [...] mais c'est aussi être de Dire Dawa, je suis née ici [...] Pour mon père, c'est être d'Hargeisa [...] (A., étudiante, Dire Dawa, avril 2013)

La Grande Bretagne a longtemps constitué une des principales destinations du khat avec 3 000 tonnes reçues par an¹³. D'après l'équipe de David Anderson (2007), 8 avions cargos par semaine délivraient du khat à Heathrow dont 2 en provenance d'Éthiopie (soit environ 80 tonnes annuelles). Et cela jusqu'à la prohibition en 2014¹⁴. Cette décision politique britannique s'ajoute à la cascade des interdictions dont les dernières aux Pays-Bas (2013) et en Chine (2014) portent un coup fatal à la verte distribution en Europe (via les *hubs* britannique et hollandais) et à celle destinée aux États-Unis et au Canada (via la *hub* de la Chine).

Malgré tout, l'exportation perdure. À Dire Dawa, les commerçants qui ont longtemps privilégié l'envoi du khat par valise en soute, via des vols directs¹⁵, doivent désormais tromper la vigilance des autorités aéroportuaires en organisant des circuits par ricochet : d'Addis Abeba aux États-Unis, via Dakar¹⁶, par exemple. Ce mode opératoire est périlleux : d'une part, il faut tenir le chronomètre car l'effet stimulant des feuilles se fane au bout de 48 heures ; il faut d'autre part trouver des mules si on ne veut pas s'y risquer soi-même ; enfin, les contrôles sont extrêmement fréquents. Ainsi une des dernières saisies particulièrement notables donne à voir ce qu'il ne faut absolument pas faire : 13 passagers de retour à Melbourne après un séjour en Éthiopie transportaient eux-mêmes, dans leur valise, 735 kg de khat dans le même vol...¹⁷

« Aux États-Unis, on khatte les samedis et les dimanches. Le khat arrive tous les jours par FEDEX » affirme M. consommateur (Dire Dawa, avril 2013) installé dans le Minnesota. La poste, de porte à porte, constitue maintenant la voie la moins incertaine mais la prudence impose aussi un effet ricochet : passer par la Belgique, pour arriver à New York¹⁸ en variant sans cesse les destinataires. Pour ceux qui ont les moyens, les

envois se font par UPS mais sans possibilité de suivre, ni d'assurer, son colis sur internet car une saisie provoquerait l'arrestation du destinataire. Sans cette traçabilité en ligne – que permettait autrefois la légalité de l'importation – l'expéditeur court aussi le risque d'être escroqué par son partenaire qui peut feindre un colis perdu.

D'autres commerçants, eux, préfèrent transformer la marchandise : les feuilles sont réduites en poudre (*gogoma*), mises en paquet, étiquetées « henné » ou « thé » et postées avec, encore, des transits. Le coût de cette démarche est moindre, les risques de saisies sont amenuisés et les bénéfices modestes mais moins hypothétiques.

Je ne connais pas le gars aux États-Unis mais il connaît un gars de Dire Dawa qui m'appelle et me demande de me charger du travail. Je prépare la commande. Moi, j'envoie d'abord au Kenya, j'ai un ami là -bas, un ami de mon village, de Bedessa, lui envoie en Chine [...] c'est pour effacer les traces, Dire Dawa, ils savent que c'est le khat [...] et de la Chine, le gars envoie aux États-Unis [...] Le gars des États-Unis connaît le gars de Chine et le gars de Dire Dawa [...] Moi, je connais que le gars au Kenya et celui de Dire Dawa [...] ce sont des Oromos. (N., préparateur de *gogoma* et exportateur, Dire Dawa, avril 2013)

Face à l'accroissement des dispositifs de contrôles, les commerçants déploient une *métis* permanente qui requiert, pour ne pas être éjecté du marché global¹⁹, un certain capital financier et/ou social.

Une icône sous contrôle

Plus le khat voyage et devient « transculturel », plus il (re)crystallise des frontières sociales : limite confessionnelle entre chrétiens et musulmans, il incarne aussi une certaine pratique de l'islam. Icône identitaire, il participe également par le bas à essentialiser les rôles des « nationalités »²⁰ : il y aurait ceux qui ont les compétences pour le vendre à l'étranger et ceux qui disposeraient du savoir-faire pour le cultiver. Cet attrait du khat et la manne financière qu'engendre sa diffusion soulèvent par ailleurs des velléités de contrôle en Éthiopie et à l'étranger où le bouquet est instrumentalisé pour ériger des lignes entre les citoyens modèles (qui ne ruminent pas) et les autres (qui ruminent).

Exaltations identitaires

Moi je khatte, je suis un *highlander* [*Habächa*] [...] mes amis me disent que je khatte parce que j'ai épousé une musulmane, mais je prenais le khat

avant mon mariage ! Les gens ne sont pas ouverts, ils vivent dans le passé [...] avec leurs coutumes, avec les prêtres qui leur disent qu'il faut faire ceci ou qu'ils doivent faire cela [...] avec [...] le gouvernement, on te dit ce que tu dois penser, ce que tu dois faire [...] avec le khat c'est la même chose, si on te dit depuis longtemps que c'est pas bon, que c'est un poison, que c'est la coutume des Oromos, des musulmans, des Somalis tout ça tout ça... tu as dans la tête que c'est pas bon, tu en prends pas et tu juges les autres, ceux qui décident de prendre le khat [...] on n'est pas libre. (T., consommateur, Addis Abeba, avril 2012)

Les fleurs du mal

Malgré sa diffusion, les discours sur l'identité *habächa* persistent à ne pas composer avec ce *catha edulis* que les musulmans « broutent comme des chèvres »²¹. Cette inadéquation posée comme évidemment culturelle prend la forme d'une tradition, laquelle agit comme un mode, sans cesse réinventé, de légitimation collective.²² Dans ces antagonismes communautaires, à la phyto-abstinence d'Épinal des uns, fait face l'islamité toujours plus revendiquée des autres : le khat est l'estampille d'un cadeau d'Allah offert aux hommes pour stimuler la prière et obombrer les mâcheurs de toutes ses propriétés afin de se soigner, se divertir, réfléchir... Le khat serait cette « *passion des musulmans, le raisin [étant] celui des juifs et des chrétiens*²³ », il serait cet arbre aux mille vertus qui, contrairement à l'alcool – « des chrétiens » – ne « rend pas violent » et ne « rend pas mauvais ». Dans ces mises en oppositions identitaires, le rameau peut être lu comme un élément à part entière des concurrences religieuses qui ont cours dans l'espace public (Abbink, 2011, 2014).

Janvier 2013, Dire Dawa

Tôt le matin, la procession de *Timkat* s'ébranle. Les rues du quartier de Kazira sont balayées par une première équipe, suivie d'une deuxième qui déroule le tapis rouge sous les pieds des prêtres qui s'avancent arborant les *tabots* (arches) protégés par des parapluies de velours brodés. Derrière eux, la foule en prières, toute vêtue de blanc.

Une heure plus tard, de l'autre côté de l'oued, non loin du marché de khat de Tchaterra, le *muezzin* appelle à la *salat-al-juma* mais, au pied du minaret, la foule blanche et compacte accompagnant les *tabots* empêche la circulation des automobiles et des piétons qui souhaitent rejoindre la mosquée. Un murmure s'élève : « Pourquoi viennent-ils ? À l'heure de la prière ! Un vendredi ! ». « *Allähu akbar, allähu akbar, ashhadu an lä illäha illä Allah* ». Le *muezzin* invite. Les *tabots* ne bougent plus.

Au bout d'une quinzaine de minutes, les arches s'ébranlent enfin, suivies par la foule. Les alentours sont lentement désengorgés permettant aux fidèles musulmans d'accourir à la prière.

L'après-midi même, dans un *mabraz* (salon de khat) :

« D'habitude, ils ne nettoient pas le sol avant de mettre les tapis [...], c'est dire que la ville est sale et impure ? [...] D'habitude, ils ne vont pas de ce côté de la ville [...] cette fois, ils ont bloqué le quartier à l'heure de la prière aux pieds de la mosquée ! » (...)

- Mais qu'est-ce qu'ils ont, cette année, à défiler partout ? Normalement, c'est trois jours, et cette année, ils vont en faire quatre »

(...) Un débat agacé sur la durée de la fête s'enclenche jusqu'à sa clôture :

« Trois ou quatre jours, on s'en fout, laissez-les tranquilles, qu'ils en prennent cinq s'il le faut ! Nous, on ne défile pas mais on khatte tous les jours ! »

Mâcher le khat trace également des différences au sein même de la *oumma*, sa licéité faisant l'objet de querelles anciennes²⁴. Ainsi, dans la région du Balé, l'anthropologue Terje østebø (2008, 2009, 2013) analyse comment les partisans néo-fondamentalistes de *Ahl-Al-Sunnah* exhortent les jeunes musulmans oromos à plus de piété en abandonnant le khat qu'ils jugent illicite. Selon l'auteur, le masticatoire démarque les musulmans salafis affiliés à *Ahl-Al-Sunnah* de tous les « autres » à savoir ces autres, « non salafis », mais aussi ces autres salafis rattachés à d'autres obédiences.

Tu vois les hommes qui sont dans les cafés, en terrasse l'après-midi, ils sont en terrasse avec le thé, à l'heure où tout le monde broute. C'est pour dire qu'ils ne broutent pas, eux (...) ils ne khattent pas parce que ce sont des wahhabis, et que pour eux le khat, ce n'est pas une pratique pour les vrais musulmans, c'est ce qu'ils pensent. (S., consommateur, Dire Dawa, février 2014)

Pour nos interlocuteurs, être musulman mais phyto-abstinente à Dire Dawa, c'est affirmer une pratique de l'islam qui « n'est pas d'ici » ; on précisera alors que ces « wahhabis » condamnent aussi le culte des saints (*ziyara*), les pèlerinages, le *zikh*, les confréries, les *karama* et qu'ils sur-voilent leur femme... ce qui va à l'encontre des pratiques islamiques locales... Autant de sous-entendus qui peuvent être lus comme faisant le lien, jamais ouvertement explicité²⁵, entre le khat et un héritage soufi. Cette référence à mots couverts nous ramène à questionner la symbolique du nom de l'entreprise 571, mentionnée auparavant. En effet Peter Hansen (2010)

souligne que 571 fait référence à la naissance du prophète et à la fête du *Mawlid*²⁶...fête qui revêt une importance très forte chez les soufis mais dont la légitimité est contestée par les salafistes qui la considèrent comme une innovation non conforme à la *sunna*²⁷. 571 ? Une marque frontière ?

Un peuple de l'herbe ?

« Les Oromos et les Somalis khattent, c'est leur habitude » : cette pratique commune est d'emblée présentée comme un lien fort unissant « les gens de l'Est », en opposition aux Autres qui ne khattent pas. Toutefois, au sein même de sa communauté d'expérience, l'arbre ouvre à la déclinaison de redéfinitions identitaires, souvent essentialisées.

« Le khat est oromo ». D'emblée, cette affirmation « efface » que le khat aurait été réservé aux notables d'Harar tenant à distance les populations oromos des alentours et ce jusqu'à la bataille de Chellenko. Relevons dans ces différentes réappropriations et réécritures de l'histoire du khat qu'elles font montre d'opposition claire entre les gens de la *deshra* (les gens de la ville, les Hararis) et ceux de la *badiyyâ* (ceux de la campagne, c'est à dire les Oromos). On peut alors se demander dans quelle mesure ces clivages sociologiques encore vivaces et contestables (Osmond, 2014b) n'ont pas été détournés pour transformer les culs-terreux d'hier en « spécialistes » de la terre et de la culture du khat... faisant oublier que, d'après les historiens et anthropologues, les Oromos de l'Harargué sont à l'origine des pasteurs et non des cultivateurs.

Mais pourtant : « le khat, c'est les Oromos, ils sont nés sous l'arbre (...) ». Ce lien est ainsi revendiqué comme « ancestral », constitutif de l'histoire, de la géographie et de l'identité d'un groupe social. À ce titre, les noms attribués aux variétés de *catha edulis* sont majoritairement de langue oromiffa et racontent, nous semble-t-il, cette relation entre les hommes, les femmes et la terre : quand la variété de la plante ne porte pas le nom du village oromo où elle est cultivée (comme les khat *kobo*, *awWoday*, *bedessa*) ou un nom qui fait référence à un savoir-faire, à une connaissance concernant l'arbre et son milieu (*karaboula* : celui qui a poussé la nuit ; *boukhla* : là où la terre garde l'eau), son appellation évoque une histoire mettant en scène des « gens du khat » comme par exemple, le *oumarkoulé* qui porte le nom de Oumar qui a hérité les champs grâce à sa mère, une femme oromo (maquillée au *khol* : koulé) qui, à chaque mariage, a récupéré des terres de ses maris successifs. Sur ces terres poussent le khat *oumarkoulé*.

Ainsi, « les Oromos sont comme le khat, ils sont d'abord couchés [la bouture de khat est plantée à l'horizontale], ensuite ils se relèvent ». Le rameau est élevé au rang d'icône, laquelle participe à la construction dans l'imaginaire d'une identité, celle d'un groupe social aux marges de l'État éthiopien mais dépositaires du savoir-faire sur le khat et de ses terres – qui sont au cœur de véritables enjeux politiques et économiques, rappelons-le. Une identité exprimée dans une métaphore de la lutte (couché/relevé) et d'un rapport d'altérité conflictuel (Osmond, 2005) où les *Habächa* représentent la culture hégémonique en Éthiopie et les Somalis, eux, font de l'argent avec le khat.

En effet, l'exportation du khat est désignée comme « une affaire de Somalis » car ils forment un important contingent de khatteurs expatriés qui constitue, d'une part, un marché conséquent et, d'autre part, un efficace réseau de distribution. Ils auraient « transformé le khat en or » :

Ils [les Oromos] ont une plante. Mais nous l'avons fait sortir du pays, nous l'envoyons dans le monde entier. Le khat, c'est de l'argent, beaucoup d'argent, cela rapporte beaucoup et ce n'est pas grâce au commerce des Oromos [...] ils vendent quelques tonnes ici [en Éthiopie] mais c'est l'exportation qui fait la vraie valeur du khat, c'est l'exportation qui fixe la valeur, le prix est fonction de ce qui sort. (Conversation de *mabraz*²⁸ janvier 2013)

Rappelons que pour exporter, même dans la Corne, les denses relations familiales ou claniques transfrontalières des Somalis opèrent comme des relais efficaces de distribution. Plus loin, il faut aussi bénéficier de bastions avancés multi-situés pour varier les trajectoires et minimiser les risques en s'appuyant sur les liens de confiance :

Les Issas²⁹ (...) ils exportent en Angleterre car, sur place, à Londres, ils ont des frères, des cousins, des gens de confiance, avec qui ils peuvent travailler. Ils s'appuient sur les liens des clans. (...) Chez les Somalis (...) leur propre sang ne saurait mentir. (...) Pour nous, il est inutile de s'aventurer sur ces pistes, il y a tout à perdre. Mais, effectivement, si j'avais épousé un somali, j'aurais pu me lancer ... sauf que j'ai épousé un homme oromo. (M., vendeuse de khat, Dire Dawa, février 2014)

Ces reconstructions identitaires qui se tissent autour du khat – opposant ceux qui appartiendraient à un ensemble redéfini comme « commerçant dans le sang » aux capacités relationnelles dépassant les frontières éthiopiennes *versus* ceux dépositaires d'un savoir-faire, qui cultivent la terre et s'adonnent au commerce local – font largement écho aux volontés de l'État ethno-fédéral de façonner et figer, par le haut, des identités

artificielles et de consolider ainsi des « nationalités³⁰ » aux contours bien fermes. Ainsi, quand, dans les années 1990, le secteur de l'exportation du khat est réorganisé, des sociétés sont créées avec, à leur tête, des Issas nommés par le gouvernement pour travailler avec le client djiboutien ; vers le Somaliland, le monopole privé de l'entreprise 571, dirigée par des Issaq, est fortement appuyé par l'État central (Lesourd, 2019). Ainsi, sur les 5 grandes sociétés d'export, seule la BIFTU n'est pas dirigée par des Somalis :

Les Oromos ont essayé de monter leur propre société après la chute du *Derg* : les paysans, ont été mobilisés pour vendre à cette coopérative d'Oromos, et pas aux Somalis, ça a marché [...] la SODJIK [société djiboutienne d'importation du khat] n'assurait que le transport. On devait passer par elle, de toute façon, il n'y avait pas le choix. Alors les Issas ont commencé à comploter avec la SODJIK, on leur faisait de l'ombre. La SODJIK a alerté le gouvernement éthiopien, en lui disant que l'argent de notre association était dangereux, qu'il servait le Front de libération oromo. L'État a dissous l'association et a monté une autre association oromo, mais avec ses Oromos, les Oromos du parti, c'est comme cela qu'est née la BIFTU. (Anonyme, conversation de *mabraz*, Dire Dawa, février 2014)

Dans cette instrumentalisation politique de la donnée ethnique par le régime, qui constitue la force du pouvoir (Vaughan, 2003 ; Bach, 2011 ; Planel et Bridonneau, 2015 ; Barnes et Osmond, 2005), le khat joue comme un outil de distinction par le bas. L'arbre participe à différencier – mais pour le moment pas à désolidariser – des populations proches et évidemment marquées par de très nombreuses interactions (Osmond, 2004, 2005).

Des citoyens modèles

Ils [les Européens] croient quoi ? Qu'on vit du café équitable ? (Conversation de *mabraz*, Dire Dawa)

Mâcher, un acte politique

Ces chevauchements politico-économiques permettent à l'État central, d'une part, d'exercer un certain contrôle sur la manne financière engendrée par le commerce du khat et de maintenir, d'autre part, sa place dans des jeux politiques locaux. Précisons en effet qu'outre l'importance des revenus qu'il génère, vu du palais, le rameau est porteur d'un potentiel subversif : dans les années 1990, par exemple, le Front de libération oromo

engagé dans un combat indépendantiste a bénéficié de l'argent du khat en installant notamment des péages pour en taxer la circulation sur les routes vers Djibouti (Barjonnet, 2005) ou en recevant directement des soutiens financiers des commerçants de khat. S'il s'agissait hier de financer la lutte contre l'État, aujourd'hui encore la plante, et ses usagers, sont associés à des pratiques possiblement contestataires (Lesourd, 2019). Les *mabraz*, par exemple, sont perçus comme des espaces de critiques politiques. Car, effectivement, c'est là que, parfois, se murmurent les mécontentements. Ils sont donc des lieux à surveiller, à défaut de pouvoir les bannir comme cela est le cas dans d'autres zones d'Éthiopie où la consommation du khat est prohibée ou extrêmement encadrée.

Le cadre légal impose d'ailleurs de limiter la verte ripaille à la sphère du privé : le khat et sa consommation sont interdits dans la rue, sur les routes mais aussi dans les hôpitaux, les écoles, les universités, les bâtiments administratifs de l'État, les prisons c'est à dire au sein « *du corps de l'appareil étatique* » (M. Foucault M., 1975). Cette politique semble s'attacher à définir les individus qui, manifestement, doivent s'abstenir de brouter à savoir les routiers, les malades, les écoliers, les prisonniers, les étudiants et ... les fonctionnaires. En effet, un « *civil servant* », donc un « encarté » au parti, se doit d'afficher un sourire *ultra-bright* sans trace des tanins que déposent sur les dents les feuilles de khat – et ce, d'autant plus, quand ce serviteur de l'État n'est pas originaire de l'Est éthiopien, membre des communautés harari, oromo ou somali.

D'emblée, l'injonction de ne pas se tenir sous l'arbre – tantôt formelle, tantôt informelle, différente pour les uns et pour les autres selon les communautés et les régions – est puissante et se dresse comme un emblème de ce que serait l'obéissance à l'État – ne pas brouter – et ce qui serait considéré, par conséquent, perçu comme une forme d'insoumission – brouter.

« *Le bruit et l'odeur* »³¹

À l'étranger, le khat reste lové dans le public des diasporas³² qu'il faudrait protéger « de la drogue » au nom des politiques publiques de santé comme en témoigne cette déclaration de Theresa May, Secrétaire d'État à l'Intérieur.

Le gouvernement va interdire le khat afin que nous puissions protéger les membres les plus vulnérables de nos communautés et envoyer un message clair à nos partenaires internationaux et aux passeurs de khat : la Grande-Bretagne est sérieuse au sujet de l'arrêt du trafic illégal de khat »³³

De nombreux chercheurs ont pourtant mis en avant combien, malgré des cas de « mésusage »³⁴, l'interdiction du khat n'est pas médicalement justifiée.

Prohiber le khat montre le mépris de la raison et de la preuve, le mépris pour les efforts sincères de l'ACMD³⁵, et surtout, l'indifférence au bien-être et aux droits des communautés dans lesquelles le khat est utilisé. Deux fois en une décennie les conseillers experts du gouvernement ont publié des critiques montrant que les relativement faibles méfaits associés au khat ne pouvaient pas justifier sa criminalisation³⁶.

Mais le khat s'inscrit au cœur d'enjeux qui dépassent les questions sanitaires. La lutte est celle contre la criminalité en général et celle contre le terrorisme en particulier. Car l'ennemi guette dehors.

Selon moi, les donneurs d'ordre sont basés dans les pays producteurs (Yémen, Kenya, Éthiopie, Somalie, Djibouti) et ils sont en connexion avec la grande criminalité internationale, en première ligne en termes de piraterie, de trafic d'armes ou de cocaïne, de prostitution. C'est une criminalité multiforme, une criminalité de haut vol³⁷.

Le Texas est un centre régional dans le trafic de la drogue illicite appelée khat, une plante narcotique, cultivée dans la Corne de l'Afrique, qui se mâche et dont la vente à l'étranger est soupçonné de bénéficier en Afrique à organisations terroristes comme Al-Shabaab [selon une déclaration publique de l'agence de la sûreté publique américaine, déclaration de 2013.³⁸]

Mais *in fine*, il est à se demander si l'ennemi ne guette pas d'abord dedans car les discours politiques sur le khat font systématiquement ressac sur l'immigration et sur les questions raciales comme ci-dessous, en Grande-Bretagne, en Chine ou au Pays-Bas.

Un grand nombre de personnes à l'ouest de Londres qui mâchent le khat toute la nuit, devenant de plus en plus agressifs rentrent (alors) chez eux le matin, battent leur femme et essayent de dormir pendant la journée ³⁹

Le [...] "thé arabe" [...] est comme l'héroïne, un déprimeur. D'autres disent qu'il est comme la méthamphétamine, un stimulant. Certains disent qu'il est utilisé comme drogue du viol par des hommes à la peau sombre ⁴⁰

Dans un entrepôt discret de Uithoorn, une centaine de Somaliens et de Yéménites se bousculent autour de caisses de khat kenyan fraîchement livré [...]. « Certains jours, il peut y avoir jusqu'à 200 voitures dans la rue », regrette la maire de la ville, Dagmar Oudhoorn. Les riverains « en ont marre », assure-t-elle à l'AFP : « il y a un vrai sentiment d'insécurité et des problèmes de circulation »⁴¹

Malheureux embouteillages à l'arrivée du khat, déchets gênants pour les riverains : tous les arguments « du bruit et de l'odeur » sont déployés pour justifier les interdits, voire la violence d'État.

À Toronto [...] quelques officiers de police ont même visité des centres et des cafés communautaires connus, en demandant aux hommes plus âgés d'ouvrir la bouche et de montrer qu'ils ne mâchent le khat. (A. Klein, 2012 : 6)

Ici, les gens ont peur de la police car si tu es noir, à Xiaobei pour la police, c'est une certitude que tu vends de la drogue ou que tu en prends (...), la semaine dernière, j'ai fêté mon anniversaire dans un club, privé, Le Fairouz, il y avait tous mes amis, des Éthiopiens surtout, la police a débarqué, ils nous ont tous forcés à pisser dans des tubes pour vérifier qu'on n'avait pas pris de drogue. Mais ce n'est pas juste la question de la drogue, la police est raciste. (Henok, étudiant, Guangzhou, juillet 2018)

Ces prohibitions résonnent fortement avec la *War on Drugs* américaine qui, rappelons-le, a fait plus de mort que les drogues elles-mêmes (Chouvy et Laniel, 2004) et incarne, pour certains auteurs, l'expression d'un racisme d'État (Alexander, 2010 ; Hart, 2013 ; Chouvy, 2015). Car ces décisions anti-khat ont pour conséquences de ne stigmatiser que des communautés noires très ciblées : Somaliens, Éthiopiens, Kenyans et Yéménites (E. Gebissa, 2012). Ceux qui consomment, ici. Et ceux qui produisent, là-bas. Des musulmans, le plus souvent, comme s'en agacent de très nombreux bloggeurs américains commentant les arrestations de « dealers » de khat lesquels portent, selon eux, « des noms de coupables à envoyer à Guantanamo ».

Marchandise synonyme de cash à contrôler, le khat en circulant est devenue une drogue, un « paria global » tout en incarnant un « héros local » (Carrier *et al*, 2014 : 117) diversement investi par les affects de ses consommateurs et de ses producteurs qui, où qu'ils soient dans le monde, redessinent au pied de l'arbre les contours de leur identité et des « traditions » réinventées. Évoquer les connexions et déconnexions du khat amène donc à embrasser conjointement les représentations intimes, les capacités d'actions individuelles, les mobilisations et résistances collectives

avec ce qui est en œuvre dans les hautes sphères du pouvoir, celles d'un État ethno-fédéral et celles, aussi, d'une gouvernance internationale où le khat doit rester cette mauvaise herbe de l'Autre.

Notes

¹ Anthropologue, chargée de recherche au CNRS, Centre Norbert Elias, Marseille.

² Le khat est inscrit à la liste des stupéfiants et interdit d'importation : en France dès 1957 ; Norvège, 1987 ; Irlande, 1988 ; Suède, 1989 ; Danemark, 1993 ; La République Tchèque en 2009. Le khat est illégal en Arabie Saoudite, aux États-Unis, en Chine mais autorisé en Israël, en Indonésie, et dans la majorité des pays d'Amérique du Sud.

³ Les terrains et les entretiens mobilisés ici ont été personnellement conduits à Dire Dawa et ses alentours entre octobre 2012 et mars 2015. Les entretiens ont été majoritairement réalisés en oromiffa, avec l'aide d'un interprète que nous remercions vivement ; d'autres ont été réalisés en français ou en anglais. Seules les initiales-pseudonymes de nos interlocuteurs apparaissent ici.

Par ailleurs, précisons que nous avons privilégié ici la transcription khat à celle de « chat » (en langue amharique) ou « qat » (en arabe).

⁴ Le royaume d'Éthiopie est né sur les montagnes du nord-ouest de la région (l'Abyssinie), christianisée dès le IV^e siècle. L'espace politique s'est structuré au fil des siècles à partir des conquêtes militaires de territoires périphériques, conduisant à une évangélisation et/ou à une mise en esclavage des « païens ». Dans l'Éthiopie contemporaine, jusqu'aux années 1990, ce cœur historique, linguistique et culturel du royaume chrétien orthodoxe « amhara » (*Habächa*) sert de modèle à l'identité nationale. Certains groupes sociaux, comme les Oromos et les Somalis, résistent à ce système de valeur hégémonique et fondent, dans les années 1970, leur propre front de libération (dont le FLO, par exemple, Front de Libération Oromo).

Dans les années 1990, cette politique d'amharisation s'estompe : l'État met en place un régime fédéral à base ethnique, les découpages administratifs sont alors fondés sur des « étiquettes ethniques » (les « nationalités ») et un champ plus libre est alors ouvert pour les revendications régionalistes qui demeurent.

⁵ Son usage pour des thérapies religieuses chez les chrétiens orthodoxes signe son « appartenance (...) à la sphère de la sorcellerie notamment chez les Chrétiens » (Rodinson, 1967 : 67). Cf Leiris (1858, 1981).

⁶ D'après Anderson *et ali* (2007), un kilo de khat se vend en 1990 à 33 *etb* et en 2004 à 96 *etb* ; en comparaison, « le café joue mal son rôle dans la culture de rente » Planel (2008 : 316) passant de 13 *etb* le kilo en 1997-1998 à 8 *etb* en 2001/2002.

⁷ 19 000 km de routes en 1990, 121 171 km en 2018. (Source : <https://afrique.latribune.fr/economie/strategies/2018-05-30/ethiopie-200-000-km-de-routes-attendus-d-ici-2020-780012.html>).

⁸ De nombreux conflits ont lieu en Éthiopie, des années 1970 aux années 1990 et avec la Somalie (1973 à 1979) et l'Érythrée (1998-2000).

⁹ Sur le khat, symbole de résistance au pouvoir, notamment colonial, voir : Krikorian, 1984 ; Anderson et Carrier 2009 ; Hansen 2010 ; Vouin-Bigot, 1995.

¹⁰ Demographic and health survey, rapport 2016, <https://dhsprogram.com/pubs/pdf/FR328/FR328.pdf>.

¹¹ Sur la culture et le commerce du khat cf. notamment pour le Kenya, voir N. Carrier, 2007. Au Somaliland, P. Hansen, 2009, 2010. À Madagascar, L. Gezon, 2012, 2013. Au Yémen, S. Weir, 1985 ; Destremau, 1988, 1990a, 1990b. Dans l'Océan Indien, Carrier et Gezon, 2009.

¹² Soit l'équivalent de la production française annuelle de noix ou de savon de Marseille.

¹³ L'importation légale y était taxée et aurait rapporté 3,6 millions d'euros (<https://marionurban.com/2014/07/09/le-khat-fin-de-partie-au-royaume-uni>).

¹⁴ Sur la consommation du khat en Grande-Bretagne et les débats autour de la prohibition : Beckerleg, 2009 ; Anderson et Carrier, 2011 ; Anderson, 2007 ; Klein, 2007, 2008, 2013 ; Klein *et alii* 2012 ; Klein et Mettal ; Hansen, 2004, 2013.

¹⁵ En 2014, *Ethiopian Airlines* dessert 20 destinations nationales et 83 destinations internationales dont 49 villes africaines, 13 pays en Europe et en Amérique, 21 pays au Moyen-Orient et en Asie. A titre d'exemple, trois vols quotidiens relient Addis Abeba à la ville de Guangzhou.

¹⁶ Dakar : 2,6 tonnes de khat ont été saisies par les douanes en 2016 (<https://www.seneplus.com/societe/7-tonnes-de-cannabis-26-tonnes-de-khat-125-kg-de-cocaine-78>).

¹⁷ <http://www.theage.com.au/victoria/huge-seizure-of-druglike-plant-at-melbourne-airport-20151112-gkxccc4.html>, 2015.

¹⁸ www.eldiariony.com/2015/03/26/red-de-trafico-internacional-de-khat-distribuida-droga-en-ny-por-ups/

¹⁹ Nous montrons comment les femmes commerçantes de khat ont été investies dans le commerce transfrontalier du khat et comment, par des jeux d'échelles et donc de pouvoir, elles en ont été évincées et amenées à travailler sur les marchés locaux, où, comme à Dire Dawa ou Harar, par exemple, elles détiennent le monopole (Lesourd, 2019, 2020).

²⁰ Cf note 3.

²¹ Cité par A.D. Krikorian, 1984 : 144.

²² Café et khat participent de ces « traditions » : les représentations à l'étranger autour du café éthiopien l'associent à des images stéréotypées d'une Éthiopie « Abyssinienne », *Habächa* donc. Or, les travaux des historiens rappellent que le khat et le café poussent sur les mêmes terres et renvoient à des consommateurs musulmans qui s'adonnent aux plaisirs de *kawa*, qui désigne tant le khat que le café (M. Rodinson, 1967). De nombreux interlocuteurs nous ont fait la remarque que « le khat comme le café », leur sera un jour « volé » par les Amharas, alors que « ce n'est pas leur culture ».

²³ Cité par M. Rodinson, 1977 : 82.

²⁴ Ezekiel Gebissa, 2010b et Krikorian, 1984. Au Yémen, voir aussi Bonnefoy, 2009.

²⁵ N'exprimer que des sous-entendus doit être replacé dans un contexte de terrains réalisés dans une période de très vives tensions politiques et sociales liées aux questions religieuses.

²⁶ Étymologiquement anniversaire des saints, *wali*, intercesseurs auprès de Dieu.

²⁷ Théodore Monod (1978 : 210) : « [chez les] *Sûfi et zaidistes* [*c'est-à-dire les actuel houti*], [on] vante les qualités mystiques de la drogue et sa valeur religieuse ».

²⁸ Salon de khat.

²⁹ Clan somali, installé entre l'Éthiopie et Djibouti ; et les Issaq, désignant les Somalis du côté de la Somalie et du Somaliland.

³⁰ Cf note 4. « Chacun des termes “nation”, “nationalité” et “peuple” doit être compris comme une communauté partageant les caractéristiques suivantes : personne disposant d'une culture commune reflétant des coutumes considérablement uniformes ou similaires, un langage commun, une croyance en une identité et un lien communs, une conscience commune de la majorité de ces personnes vivant à l'intérieur d'un territoire commun » (traduction par Osmond, 2005 : 63).

³¹ Extrait d'un discours de juin 1991, prononcé par Jacques Chirac, alors maire de Paris et Président du RPR.

³² Excepté, par exemple, en Israël (Klein *et ali*, 2010).

³³ <http://metro.co.uk/2013/07/03/khat-britain-bans-herbal-stimulant-despite-advisers-calls-for-rethink-3868015/>

³⁴ « [...] beaucoup de Somaliens ont pris l'habitude de mâcher pendant la guerre et dans les camps de réfugiés, dans [...] des situations de dysfonctionnements sociaux et de dislocation individuelle. Ils ont développé un modèle d'utilisation de khat qui ne s'est pas déployé dans une structure sociale organique [...] et n'a jamais été encadré par un rituel qui aurait permis d'éprouver les possibles effets néfastes. [Anderson *et al.*, 2007, p. 187]. Sur les mésusages, cf. aussi : Klein, 2007 ; Klein *et ali*, 2010 ; Anderson *et ali*, 2007, 2011.

³⁵ ACMD Advisory Council on the Misuse of Drugs.

³⁶ Réaction de David Nutt (ancien président de l'ACMD) (<http://y.theguardian.com/politics/2013/jul/03/theresa-may-bans-qat>).

³⁷ <http://www.lavoixdunord.fr/region/calais-ce-qu-il-faut-savoir-sur-le-khat-en-dix-questions-jna33b0n1167073>

³⁸ <http://y.mystatesman.com/news/news/crime-law/law-enforcement-claims-of-khat-terrorism-connectio/nb72C/> ou voir encore Laura Armstrong, *The Marietta Daily Journal* « New wave of immigrants to US let the khat out of the bag ». » ; ou http://www.huffingtonpost.co.uk/2012/04/04/somalia-british-khat-cafes-mafrishes_n_1402933.html.

³⁹ Stephen Pound, Labour MP For Ealing North cité par Anderson *et ali*, 2007 : 177.

⁴⁰ <http://y.thedailybeast.com/articles/2014/10/20/china-s-war-on-qat-chewers.html>

⁴¹ <http://y.20minutes.fr/monde/866652-20120125-uitoor-n-pays-bas-plaque-tournante-commerce-khat-europe>

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NELUMBO NUCIFERA GAERTN: A CHINESE SPIRITUAL SYMBOL AND SOURCE OF PROSPERITY

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According to a report by China's Xinhua News Agency on 10 July 2019, the town of Baipeng near Liuzhou, Guangxi Province, decided to replace the cultivation of rice with that of the lotus, abandoning a thousand-year-old agricultural tradition.¹ Since staple food production is directly related to the local population's survival, what were the reasons for this groundbreaking change? The report gives a very clear answer: although the main agricultural activity in this area had been rice production for thousands of years, the traditional cultivation techniques could not increase the yield. In addition, since the 1960s, due to frequent occurrences of pests and droughts,² the local rice production had continued to decline. Amongst other things, insect pests (*Cnaphalocrocis medinalis*) in 2008 wreaked such havoc³ that the rice production could not meet the basic living needs of the local farmers. In order to improve living standards and to shake off poverty, the local council decided to switch from rice to lotus, turning all rice fields into lotus cultivation bases. Growing lotus as a commercial crop is also a way of taking advantage of existing experience and techniques. In fact, for more than 700 years the locals have been cultivating lotus on a small scale to harvest the roots. Besides, the large-scale planting of lotus can also improve the environment, prevent drought, and maintain soil and water. By modernising the traditional techniques to achieve better economic yields, this change aims at raising the farmers out of poverty and, in the long run, helping them to prosper.

In the face of such a bold and thorough agricultural reform, we can only wonder whether it is scientifically sound and feasible, or whether the large-scale cultivation of lotus can really improve farmers' living standards. To answer these questions, this chapter is divided into three parts to study the eventual outcome of this agricultural revolution chosen by Baipeng Town. Firstly, we will focus our research on how traditional Chinese culture interprets the lotus. Secondly, we will analyse the Chinese cultural aesthetics underlined by the affection for this aquatic plant and, thirdly, we will attempt to understand why the lotus embodies hope for a better life.

The discovery and socialised appreciation of the lotus

Chinese people have had a close relationship with the lotus since ancient times. They have adored this aquatic plant, admiring its flower, planting it to decorate their environment and using its name as a metaphor. They also used many parts of this plant to cure diseases. Various food recipes and traditional medicine treatments use the lotus as an essential ingredient. However, research on the history and origin of the lotus has been relatively scarce. Scientific research on it only began in the 1970s.⁴ In 1951, researchers at the Beijing Botanical Garden of the Chinese Academy of Sciences collected a large number of ancient lotus seeds from the peat layer in Pulandian, Dalian, Liaoning Province. After carbon-14 dating in later years, this batch of ancient lotus seeds was found to be around 9.15 million years old. In 1952, under the care of the researchers at Beijing Botanical Garden, these ancient lotus seeds worked a miracle: not only did they sprout but they also successfully seeded for the next generation. This both ancient and new-looking lotus, named 'Ancient Lotus', 'Chinese Ancient Lotus', or 'Pulandian Ancient Lotus', was then experimentally cultivated in a small number of Chinese gardens (*Nelumbo nucifera* or 'Chinese Antique Lotus').⁵

In the 1970s, an archaeological botanist, Professor Xu Ren, discovered fossils of lotus leaves in the Qaidam Basin in north-western China. The fossil was proved to be at least 10 million years old. In 1973, archaeologists also found lotus pollen fossils in Yuyao County, Zhejiang Province, among the relics at the "Hemudu Culture" site, which was a Neolithic culture that flourished 7,000 years ago. Also in 1973, the fossils of carbonised lotus seeds were found on a table at the "Yangshao Culture" site, which was a culture that was 5,000 years old. These findings indicate that people in ancient times already used lotus seeds as food. Not only that,

the *Book of Zhou* 周书⁶, written more than 3,000 years ago, describes how to pick the roots and stems of lotus: “bogs dried, digging lotus roots”. This description means that after the water dries up, people can enter the pond to dig up lotus rhizomes for food. Based on these written records, we can deduce that in ancient times people may have planted edible lotus as part of their agricultural production.

Furthermore, an archaeological investigation of the site of “Playing Flower Pond” on Lingyan Mountain, Suzhou, shows that some lotuses were also planted there as an ornamental plant 2,500 years ago. The earliest written record on potted lotus can be traced back to the Eastern Jin Dynasty (317–420).⁷ The calligrapher Wang Xizhi wrote in his *Jieshutang tie* 柬书堂帖 letter: “This year I planted a few lotuses in pots. They bloomed one after another, now more than twenty branches have flowered, which is quite spectacular.”⁸ He was very proud to describe the joy that the lotus bloom brought. Later, the book entitled *Qimin Yaoshu*, 齐民要术 [Main techniques for the well-being of the people] written by Jia Sixie 1,400 years ago, documented a “lotus propagation method”. The author, who lived during the Northern Wei Dynasty, was already teaching people how to use the lotus rhizomes to grow lotuses, how to reduce the growth time and how to increase the yield.⁹ This ancient technique is still a valuable reference today. All these historical documents suggest that the lotus is a plant native to China.¹⁰

The Chinese have been unable to discover the precise origin of the lotus, nor have they obtained a detailed history of lotus cultivation. Nevertheless, thanks to certain modern archaeological research, as well as valuable ancient documents and literary works, today we can establish the special connection between the lotus and our ancestors. In recent years, ordinary people have shown an increasing interest in lotus cultivation. A series of new lotus varieties have been developed, which in turn has speeded up lotus production in various regions across China. Social media has also voiced various opinions on lotus culture and many theories about the lotus have appeared online. Without any sound proof, some articles even implied that there is a description of lotus in *Shan Hai Jing*.¹¹ Yet, in reality, the earliest written Chinese texts about lotus can be found in *Shijing* 诗经, followed by *Verse of Chu*. After the Han Dynasty, lotus depictions frequently appeared in *Han Yuefu* 汉乐府¹², a poetry collection, and other works of literature.

China is endowed with a vast territory, a huge population and numerous complex dialects. The northern and southern regions, and even the counties in the same province, have different names for the lotus flower. Because the lotus is an aquatic plant, primitive peoples often named it using the Chinese word 水 /shui, meaning “water”, such as *Shuizhi*, *Shuihua*, *Shuiyun*, *Shuidan*, *Shuimu* and *Zezhi*. In total, there are probably more than 10 Chinese expressions for lotus, including lotus flower, fentoli flower and *hàndàn*, in addition to the names above. There are also many expressions for lotus flower buds, namely water bladder grass, hibiscus, water hibiscus, jade ring, June spring, Chinese lotus, June flower god, lotus flower, spirit grass, jade, water palace fairy, Gentleman flower, tianxian flower, red lotus, xike, green ring whip hibiscus, whip, golden hibiscus, grass hibiscus, jingke, cuiqian, red clothes, gong lotus, buddha cushion and so on.¹³ In his *Ode to Furong*¹⁴, the writer of the Three Kingdoms period, Cao Zhi¹⁵, praised lotus as “the only spirited beauty, overtaking all other flowers”, and compared the lotus to the ganoderma, a herb that in Chinese culture is believed to bring immortality, in water.

In order to explore how the ancient Chinese established a relationship with this plant, we can turn to *Shijing* where the lotus is evoked. In it, the poem titled “Odes of Chen Ze Ze” reads:

There are cattail and lotus flowers, beside the clear pond.
 There is a handsome man, I cannot stop thinking?
 Day and night without any sleep, my tears are rolling.

A young maiden, sitting next to a pond alone, pines for her lover in the company of lotuses. The longing torments her day and night. Her lover is akin to the lotus in the water, which she can see but not reach. The poet compares the tangible distance between the lotus and this girl to the intangible social distance that keeps men and women who are in love, and who can see each other from afar, from coming together. First, there is an observation at a distance between the ancient human beings and the plant in the water, then comes the imagination. The lotus is metaphorised to embody precious beauty and pure love, which people desire.

The Han Dynasty was the era when the development of Chinese Han culture reached its first peak. Due to rapid economic development, a relatively high standard of living, and a stable and peaceful society, the beauty of the lotus acquired new meanings. Social life was depicted particularly in the novel *Xijing Miscellaneous Books of Huangjing*¹⁶. The book’s author, Liu Xin, mentioned the scene when Emperor Zhao was

amazed, watching swans flying to a lotus pond in search of food. Here, the lotus becomes the link between nature and human consciousness.¹⁷ The lotus flower not only offers its beauty to nature, but also provides sustenance for the life around it. This honourable and admirable spirit is also an example for mankind to follow. At the same time, the story implies that a ruler can draw lessons from the harmony between the beautiful lotus and its environment, and understand that he must handle his subjects with care in order to make the country strong and stable. Another historical value of Liu's text is to prove that in the imperial palace of the Han Dynasty, lotuses were already planted in specially created ponds. This aquatic plant became essential for landscaping and decorative purposes. It is also worth mentioning that the Han bricks of the imperial palace were engraved with lotus patterns.

The Han Dynasty's government supported immigration for military purposes, which in turn promoted the interchange of Chinese and extraterritorial cultures. The development of commerce in the Western Han Dynasty (202 BCE to 8 CE) largely enriched the variety of available products. Not only did it boost the demand for lotus, but it also prompted many regions to start cultivating it.¹⁸ During the Western Han Dynasty, lotus cultivation became more extensive in mainland China. This aquatic species was no longer just an exclusive plant in the royal garden; it was also shared and appreciated by the common people. New techniques were developed for lotus cultivation – for example, in some dry climates where rivers and ponds were scarce, people tried to grow lotuses in flowerpots.

As a result, the literati's understanding of and imagination about the lotus flourished, which raised its status in literature and the arts. Since the Han Dynasty, people's appreciation of lotuses has no longer been from a distance but close and direct, even possessive. A typical example can be found in a very popular poem from *Han Yuefu's* 汉乐府¹⁹. It describes “the South of the Yangtze River teem[ing] with lotus seeds. How dense and flourishing are the lotus leaves”. This folk song not only expresses the cheerful mood of the people who pick lotuses, but also vividly highlights the joy of harvesting lotus fruits and rhizomes. Another lyric folk song from the Southern Dynasty is called *Xi Zhou Qu* 西洲曲 [The Song of Xi Zhou]. It runs:

Autumn time in the South pond, Red lotuses were head-high.
She bowed to pick lotus seeds, that were as green as the water;
She tucked in her sleeve the seeds, which had hearts all red.

The poem reveals a special relationship between a maiden and a lotus, from observation to possession in three steps. The first is to get into the pond to be in amongst the lotus. The second step is to touch and carefully observe the lotus. The third step is to pick the mature lotus fruits and put them in her sleeves.

Based on the above analysis, we find that lotus descriptions in ancient Chinese poetry started in *The Book of Songs* and continued during the Han Dynasty. Through their verses, the poets reflected what connected lotuses and humans. At the beginning, they simply observed and recorded the external image of the lotus. Gradually, they imbued it with a human soul to convey their aesthetic view of nature. In this way, this popular water-plant became deeply attached to Chinese culture, providing a model for future generations of poets.

In terms of phonetics, the pronunciation of 荷, meaning “lotus”, is the same as that of 和, meaning “together” and that of 合, meaning “combination”. “Together” and “combination” imply love. Whereas 莲, meaning “lotus fruit”, is the homophone of “pity” (怜) and “connection” (连). This also can be connected to love, and so can 藕, meaning “lotus rhizomes”, the homophone of “partner” or “lover” (偶) and 丝, the homophone of “thoughts” (思). Through the homophones, all parts of the lotus can be connected to love and partnership.²⁰

During the Wei and Jin dynasties, people made new discoveries about the characteristics of lotus rhizomes. When a section of a lotus rhizome is cut off, countless clinging fibres remain. This unique phenomenon has inspired people’s imagination. Many verses use this fact to draw comparisons with the particular situation of certain lovers who are separated but still in each other’s thoughts. With time, the praise of the lotus gradually made it symbolic in Chinese folk cultures. When the public discovered that one homophone of lotus root means “dual”, the botanical phenomenon of “separated roots with clinging fibre” was coined into an idiom, inferring the complicated human relations between husband and wife, or between friends. Moreover, in some regions, the phonetic translation of the idiom “naturally good lotus root” also means “a perfect match made in Heaven”. Therefore, since ancient times, lotus rhizome roots have been an indispensable and auspicious item at weddings in many lotus cultivation regions.

Since the Eastern Han Dynasty, the lotus has become a focus of passionate interest for gardening, painting, poetry, leisure and even worshipping. This

water-plant has been integrated into Chinese social culture, becoming important for daily life. In turn, the plant was widely cultivated, propagated and admired. During the Wei and Jin dynasties, a few new lotus types appeared, including not only single-petalled but also newly cultivated double-petalled varieties that caused a stir. Cui Bao²¹ from the Jin Dynasty recorded this phenomenon in his book *Notes on the Ancient and Modern*:²² “Fulong, also named lotus, has the most splendid flower. These flowers have many petals.” At the time, the double-petalled variety was considered the best. In the Northern and Southern dynasties, a thousand-petalled lotus appeared. The *Book of Song: Annals of the Lotus*²³ described the strange phenomenon of a lotus with two flowers on one stalk that bloomed in Emperor Yuanjia’s garden, on 22 July 430 under the Southern Dynasty. Later, very rare three-flowered lotuses also appeared. Emperor Liang Yuan of the Southern Dynasty also wrote an article about picking lotus fruits, *Cai Lian Fu*.²⁴ He described the innocent and charming scenes of young men and women collecting lotus flowers and lotus seeds.

According to the research of Professor Tian Zhaoyuan of East China Normal University in Shanghai, *The traditional repertoires of lotus songs*, a standardised poetry format, occupies a very important place in ancient Chinese poetry history. Many important poets during the Tang Dynasty, such as Bai Juyi, Wang Bo, He Zhizhang, Zhang Ji, Wen Tingyun and many others, have all produced lotus-themed poems.²⁵ Among them, Wang Changling’s “Lotus-Picking Songs” is the most typical. The poet, borrowing from *Han Yuefu* poems, concentrates on artistic beauty when the lotus and the lotus-picking girl become one entity. The girl’s skirt and lotus leaves are integrated into one, and the girl’s face and the lotus flower are integrated into one. The lotus leaf and lotus girl are both in the water; it is impossible to distinguish which one is more beautiful. It is only when a song starts that you can perceive the person next to the flower. The original meaning of the Chinese word for 采, “picking”, is “to acquire” and “to possess”. The underlying meaning of lotus-picking can be interpreted as the acquisition of female beauty. Here, picking is no longer just possessive but an action of uniting natural and human beauty. The lotus not only provides a poetic theme for literati, but also gives inspiration to artisans, Chinese calligraphers and painters. It is a typical decorative component in all sorts of buildings. This shows the special aesthetic attractiveness of lotus flowers at the time.

Huang Quan, a painter of the Five Dynasties, and Xu Xi, a painter of the Southern Tang Dynasty, both chose the lotus as a theme in their paintings.

Decades later, during the Song Dynasty, lotus-themed painting reached its peak. Emperor Zhao Song also expressed his feelings by painting lotuses. During the Song Dynasty, lotus cultivation on a large scale was initiated²⁶ as this activity became economically important. In the Southern Song Dynasty, the potted lotus planting technique was again improved. According to the *History of Flowers*,²⁷ during the Song Dynasty Emperor Xiaozong's period, the royal gardeners planted many red and white lotuses in pots, and then placed them in water. To create a lasting spectacle, these pots were adjusted accordingly to maintain the blooming.

In 1762, the Qianlong emperor built a pond in the Yuanmingyuan (Old Summer Palace) in Beijing for the purpose of planting pond-lotuses brought back from the south. Private gardens were also increasingly planted with lotus flowers. The cultivation of different varieties of lotus in royal gardens as an aesthetic form of ornamentation provided the growing number of private gardens with an aesthetic standard that mimicked that of the imperial palace, and the lotus became an indispensable ornament. In China, the aesthetic sense and way of life of the supreme ruler directly influenced the consciousness of the people. The aesthetic pursuit of lotus cultivation by the upper class and the ever-innovative diversification of the ways of appreciating it were also spread and popularised among the people. The people also began to hold lotus flower appreciation festivals in June. The deliberate pursuit of lotus appreciation not only influenced civil society's love for the lotus, but also led to the development of multiple varieties of lotus flowers in the north and south and increased the choice of colours. The graceful and noble water-pink colour became the symbol of Chinese lotus flowers. Year after year, the number of lotus festivals has multiplied and the tradition has been passed down in different regions of the country. Appreciating the beauty of the lotus and understanding the characteristics embodied in it have become a major element of Chinese culture.

The Chinese spiritual value of the lotus

If the lotus can be considered as one of the key elements of Chinese culture, it is due to the fact that it vividly embodies a quintessential Chinese ethos. This opinion is asserted here because not only is the lotus physically associated with fragrance and elegance but it is also philosophically connected to Taoism. Later, when Buddhism came to China, it also brought new religious connotations to the lotus. The encounter of the lotus and Buddhism added more cultural dimensions to

this aquatic perennial. Furthermore, the humanistic value of the lotus was promoted by the work of Chinese writers and poets, dynasty after dynasty. For many Chinese intellectuals, this plant became a symbol of noble virtues.

As one of the fundamental elements in nature, water is used by Lao Zi in his *Dao De Jing* to explain what “Tao” should be: “The highest goodness is like water” – water benefits all things but does not compete, so it is “Tao”.²⁸ Zhuangzi also states that “water reflects the virtue of nature”²⁹. Water nurtures everything on earth but stays in the lowly places, which others despise. This character of water is in tune with Taoist philosophy, pursuing the virtues of naturalness.³⁰ Unique and glamorous in its own right, the lotus grows in water and multiplies, abiding nature’s law like all other species. Adapted to its environment, not only does it provide appealing blooms, but it also provides humans with its fruit and root as food. In Taoist philosophy, the lotus represents strength without intention. Many Taoists favour this plant because it also means a harmonious relationship with nature. According to the classic historical works of Taoism, after in-depth study, it was pointed out that the relationship between Taoism and the lotus is complementary.³¹ Undistracted by its charming appearance, Taoists were intrigued by its vigorous force underneath.

In the philosophical and sociological sense, the purpose of Confucian political philosophy is to encourage the public to serve those in power while obeying the will of rulers, and to seek possession of wealth and political rights as the highest state of life. Contrary to Confucianism, Taoist philosophy respects the laws of nature, emphasises coexistence with the environment and abstains from killing. The one and only purpose of life, in Taoism, is to be free from worldly desires, to live simply, to cherish everything that nature provides, and to achieve harmony and unity with nature through spiritual cultivation. The lotus in many ways corresponds to the ideology of Taoism, since it represents a simple natural elegance that is detached from desires.

In many historical documents, the lotus has been linked with Taoist ethics. Folklore has it that Lao Zi the founder and philosopher of Taoism, left the secular world and became an immortal. He was then worshipped under the name of “Taishang Laojun”, meaning “Supreme Old Lord”. As the vast territory of China hosts numerous dialects, in some regions he is called “Taiyi Zhenren”. Regardless of the difference in title or image, this Taoist deity always has a direct connection with the lotus. In addition, in

harmony with Taoism, the lotus is endowed with supernatural powers that generate miracles. The mythical legend of “Nezha, The Child Hero” fully illustrates this. This story first originated from a religious mythology classic entitled *Three Religious Souls* during the Yuan Dynasty. Then, during the Ming Dynasty, it was readapted by a novelist. The novel was entitled *The Investiture of Gods*, a fantasy novel depicting the war between various powers during the Shang Dynasty before 2,000 BC. One of the interesting aspects of this work is the combined power of the lotus and Taoism.

Chapter 14 of the novel describes the details and results of this combination. Nezha wants to break up with his father, Li Jing, the “Pagoda-wielding Heavenly King” who represents corrupted power, and instead Nezha wants to defend justice and protect the poor. The Tota Sky King Li Jing only knows how to defend the interests of evil; he does not know how to allow his own son to demand fairness and respect for the poor fishermen. If Nezha does not obey his orders, the King of-Tota will sever the father-son relationship with his own son. So, under threat, Nezha is forced to commit suicide to return his body to his parents, disowning their blood tie. The determination of this brave child, who defies evil, defends truth and helps the poor, deeply touched Taiyi Zhenren. In order to reward him for his courageous deeds, the founder of Taoism decided to rebuild a human body with two lotus flowers, three lotus leaves and some lotus roots. Then, he used a Taoist resurrection method to transplant the strong soul of Nezha into this artificially constructed lotus human form. The fearless boy was finally freed from the chains of oppression through this unearthly birth, and he continued to seek the truth, fight for justice and bring safety to people who are suffering. Since then, the reincarnated Nezha has represented the integration of lotus and Taoism, denoting a new social interpretation.

Although the reincarnated Nezha takes the same human form as before, underneath he is actually a lotus. This is a humanised lotus incorporated with Nezha’s noble spirit. The new incarnation of “Nezha, The Child Hero” itself demonstrates that a harmonious Taoist relationship between nature and man produces magical power. Therefore, Nezha was strong enough to defeat any evil force and to help the poor to get their due share of power as wealth. Moreover, after this Taoist baptism which “unites man and nature”, he could not be touched by any earthly suffering such as disease or plague, nor could he be affected by any natural disaster. “Nezha, The Child Hero” not only emphasises the nobleness that is linked to the lotus, but it also embodies the harmonious unification of Taoism and

eternal youth. In China, a country once dominated by Confucian authoritarianism for thousands of years and now by a single-party autocratic government, there is no real freedom. The popularity of the “Nezha, The Child Hero” legend denotes, to a certain extent, the dissenting inclination that is shared by many Chinese people.

Since ancient times, many temples have been specially built to worship this mythical young superhero in various regions.³² In the southern coastal areas, the story of “Nezha, The Child Hero” is no longer limited to the scope of Taoism or Taoists, but has also been taken up by local theatres. The young hero recreated by the dramas exemplifies certain social attitudes, reflecting the courage of ordinary Chinese who remain unyielding to the rich and powerful.

In the contemporary era, this mythological legend has been adapted many times into animated movies and television series. Nowadays, Nezha is a household name and loved by all Chinese so much that his story features in a must-read story list for early childhood education. In 2019, the box office revenue of the animated movie *Birth of The Demon Child Nezha* in just one week in China exceeded RMB 4.1 billion (estimated US\$58 million).³³

In addition to the spiritual connection, the Taoist lifestyle is also directly related to the lotus. Taoists are vegetarians; they abstain from eating meat. The lotus in the natural world corresponds with what Taoists need metaphorically and physically. The lotus leaf, lotus seed and lotus root provide abundant nutritional resources for Taoists. Lotus can be used as food, as well as a philosophical object – in a sense, it provides “a natural unification”. During the Northern and Southern dynasties, as Taoism flourished, the lotus became a symbol of wisdom – “*Dao Rui*” 道瑞 [“Taoists understand and respect nature”] – a fact which has endured until today.

It should be pointed out that the Chinese affection for the lotus is not only closely related to Taoism, but also influenced by the spread of Buddhism. The eventual dissemination of Buddhism in China was so successful that this religion gained a most important place. Faith in Buddhism has also brought new understanding and fascination for lotus flowers. This is because the lotus flower is the holy flower of Buddhism, which guides people onto a good path. In 64 CE, Emperor Ming of Han sent an envoy to India to inquire about the teachings of Buddha. Buddhism was then introduced to China, with new religious interpretations of the meaning of

lotus flowers. In order to store Buddhist scriptures and promote the new religion, in 68 CE Emperor Ming of Han ordered the construction of the White Horse Temple at Luoyang. At the beginning, Buddhism was primarily introduced to the Chinese upper class as a new spiritual guidance. Then, it gradually spread to common people and took root throughout the country. While the popularity of Buddhism in China increased, surpassing Taoism, this imported religion added more elements to the Chinese lotus culture. In a very simple and straightforward way, Buddhism expresses the relationship between Buddha and the lotus in carvings and paintings.

The lotus is omnipresent in the earliest Buddhist carvings in China.³⁴ The Longmen Grottoes have the most Buddhist statues in one concentrated area. The patrons and donors were the nobles in the Northern Wei Dynasty and Tang Dynasty. The grottoes were built under the imperial order that supported Buddhism as a national religion. On these stone sculptures, the image of the lotus can easily be found, sometimes on the pedestal of the Buddha, sometimes in the background. Here, the lotus flower not only is a decoration but also has a religious meaning. According to the *Jataka Tales*³⁵, Sakyamuni was born more than 2,000 years ago in northern India. When he was born, he walked seven steps in ten different directions; lotus flowers appeared at each step and there were flowers scattered by the goddesses. Later the lotus was used to represent the seat under the Buddha in Buddhist art. In Buddhism, the lotus is a holy flower that can eliminate human suffering. Its image of a flower rising unstained from the muddy water it grows in is often used as a metaphor in Buddhist teachings. The carvings of the Longmen and Yungang Grottoes are most convincing demonstrations of this principle.

The building of the Mogao Grottoes in Dunhuang started in 366 CE and the excavation and carving took more than 1,000 years. The devoted craftsmen always associated lotus flowers with the founders of Buddhism. Now, 2,000 years later, the close relationship between the Buddha and the lotus is still reflected in Buddhist buildings, such as temples and ancient pagodas. The Buddha sometimes sits on his lotus throne, or sometimes lies among lotus blooms. Buddhists call the kingdom of the Buddha “the lotus kingdom” and the Buddhist temple “the lotus house”. Guanyin, the Buddhist bodhisattva, is often worshipped in temples in a female form. Seemingly detached from the secular world, she is always portrayed gazing down at the lotus in her hand. The lotus is an important symbol and is sacred to Buddhism.³⁶ The Chinese lotus culture interacts with Buddhism, which is unique for a flower. Because Buddhism insists on kind deeds, detachment from the material world, abandoning violence, and

in a country ruled by Confucianism, to avoid conflict with power, Chinese people are more willing to accept Buddhism. In China, the ruler's belief was to be accepted without question. To a certain extent, believing in kind deeds reflects the Chinese idea of "harmony" and "the force of harmony, victory over all", which is beneficial to the establishment of social harmony.

The close relationship between the lotus and Buddhism was firmly reinforced as Buddhism spread. The lotus was commonly regarded as a symbol of religious sacredness and nobleness. But then, for more than 2,000 years, many Chinese literati have followed Qu Yuan, a great poet and politician living during the Warring States Period, who used lotus flowers as a metaphor for an intellectual's dignified purity. During the Song Dynasty, this metaphor was echoed and glorified by author Zhou Dunyi (1017-1073). He praised the character of the lotus as one that "grows out of mud but remains unstained". In particular, he identified four special qualities of the lotus: it strives for excellence but is untarnished by the surrounding environment; it does not use its natural beauty to ingratiate itself; it acts righteously; and it maintains an integrity that cannot be tarnished. Philosophically, Zhou Dunyi raised the symbolism of the lotus flower to the highest *grandeur* and the aquatic plant became an inspiration for intellectuals who have a sense of justice and sound morals. These virtues (rectitude, fearlessness against autocracy and incorruptibility³⁷) set a perfect ideal for the Chinese people.

In modern times, new social significance and new understandings have been attached to the lotus. Phonetically, the lotus in Chinese 荷 (he) is the homophone of "harmony" and "unification". Another name attributed to the lotus, 莲 (lian), is the homophone of "joint" or "union", and new interpretations have come from these homophones. In their quest for happiness and wealth, the Chinese people repeatedly use lotus flowers as an amulet of peace, harmony, cooperation, joint force, unity, etc. The high purity of lotus flowers is associated with global peace and friendship. Therefore, the general use of the lotus is a demonstration of the "harmonious" Chinese culture. Ironically, on 1 July 2017, in order to commemorate the birthday of the Communist Party of China, an article was published advising all members of the Communist Party to remain honest and noble, learning from the lotus flower which "grows from the mud but is not stained".³⁸ The lotus is thus imposed by the party in its propaganda, adding a political element.

The contribution of the lotus and its practical economic value

It is only in the Ming Dynasty that the medical use of the lotus became popular. It is also during the same period that contemplating lotuses became a leisurely activity for the common Chinese people. The most important driving forces behind this phenomenon were economic prosperity and vibrant social and cultural activities. The diversification of people's consumption needs from all levels of society prompted the surge for various products. Against this historical background appeared the expansion of readership at different social levels and innovation in leisure activities. The emperors of the Ming Dynasty gave prominence to the development of the printing industry right from the beginning. Thus, the expansion of printing and publishing businesses were encouraged. This resulted in the improvement of printing technology that needed to meet the demands of a large readership. The quality of printing and the wider availability of the technique meant that books became more accessible, even to the common people, and the general level of culture improved greatly. Due to the freedom of publication, various forms of books appeared, including painting books and comic strips.³⁹ Therefore, the printing and publishing industry also played a great role in spreading the culture of the lotus. During the Ming Dynasty, two eminent writers are closely related to the vulgarisation of the lotus as a medical ingredient and a vegetable. The first is Li Shizhen (1518–1593), whose scientific book *Compendium of Materia Medica* 本草纲目 included the lotus as a herb used in treating different diseases. The second is Li Yu (1601–1680), an intellectual living during the late Ming Dynasty and the founder of Chinese leisure culture. Li expanded the knowledge of the lotus, introducing it for home consumption in daily life, deviating from the elegant spiritual and religious symbol.⁴⁰ The contribution of these two writers turned the Chinese lotus culture into a multidisciplinary system with spiritual, medical and economic facets.

The earliest known work on herbs in China, *Shennong Materia Medica* 神农本草经, appeared in the Qin and Han dynasties. This book mentioned that lotus seeds could nourish the human body. Later, other medical works that appeared recorded more medicinal properties of the lotus. However, due to the historical conditions, except for the medical community of the upper class, common people were unaware of the existence of these documents and lotus treatments were rarely used. During the Ming⁴¹

Dynasty 1,500 years later, Li Shizhen studied medicine with his father in an established environment. He also had the opportunity to read the royal medical documents. Additionally, he conducted detailed research on the classification and characteristics of Chinese herbs. These were the prerequisites that enabled him to write *Compendium of Materia Medica*, including a more complete medicinal function of plants, on the basis of the ancient pharmacopoeia *Shen Nong's Materia Medica* and *Essence of Materia Medica* 本草品汇精要⁴², written in the early Ming Dynasty.

It should be pointed out that the reason why Li Shizhen's book was widely circulated and applied is closely related to the specific historical background. The epoch he lived in was in the middle of the Ming Dynasty, which was a time when the readership expanded to the lowest stratum of society due to the expansion of printing and publishing industries.⁴³ The printing techniques provided detailed drawings of every herb, which made it easy and practical for the common people to use. Since then, the *Compendium of Materia Medica* has become an encyclopaedic classic of Chinese traditional herbal medicine. Through this illustrated and professional medical guide, the readers were able to see drawings of lotuses – many people had never had the opportunity to see a real lotus. The book also informed the readers that every component of this aquatic plant could be used to treat different diseases. For example, according to the Chinese traditional medicine theory, the lotus flower has many benefits such as invigorating blood circulation and controlling bleeding, dehumidification and wind elimination, relieving heartburn and cooling blood, relieving heat, and detoxifying the body. The lotus stem itself can reduce fever, relieve summer heat exhaustion, aerate water, relieve heartburn and so on. As a result, the common people gained more knowledge on the special medicinal properties of the lotus and the plant was soon widely used as a herb.

In addition to the expansion of the printing and publishing industry, the prosperous economy of the Ming Dynasty also provided a material foundation for the leisure time of the literati. During this period, the people in the Jiangnan regions of China were keen to culturally enhance themselves. Chinese intellectuals therefore enjoyed a sense of cultural superiority. These educated men even had the right to influence and determine what defined elegance or vulgarity, which in turn influenced the aesthetic standards and cultural consumption of the general public. The lifestyles and opinions of these literati became the points of reference for the other social classes.⁴⁴ Li Yu (1611-1680), a scholarly author who grew

up in Lanxi, Zhejiang Province, a town in the south of the lower reaches of the Yangtze River, was not only a writer and a playwright but also an innovator in the culture of leisure. His own philosophical attitude and mode of life reflected the aesthetics of the literati in the Wei, Jin, Northern and Southern dynasties, which advocated a return to nature and detaching oneself from secular power politics.

The ancient works *Eating Materia Medica*⁴⁵ and *Therapeutic Materia Medica*⁴⁶ recorded the methods of consuming lotus seeds. In his essay “Fuqu 芙蕖⁴⁷” and poem “Recalling Qin E 忆秦娥 咏荷风”, Li Yu inherited the legacy of his predecessors and developed it in new directions. From the four different angles of viewing, smelling, eating and using, he explained the versatility of the lotus in simple language, praising its “beauty”. Then, he concluded on “the benefits of planting”, giving two reasons: the lotus was “agreeable for viewing” and “practical for home use”. Li Yu specialised in extracting all of the functions of the lotus. Not only did Li cultivate this beneficial water plant himself, but he also played a crucial role in establishing it as an economic crop. Under the influence of Li Yu’s essays, admiring and tasting lotuses became an elegant trend, and a fashion inherited and enriched by future generations. Many important works of the Qing Dynasty, such as *Suiyuan Food List* 随园食单⁴⁸, *Suixiju Diet Chart* 随息居饮食谱⁴⁹ and *The Dream in the Red Pavilion* 红楼梦⁵⁰ reflect this. The popularisation of lotus culture in modern China began with the consumption of lotuses.⁵¹ Research today reveals that the lotus root is full of nutritious elements. It is suitable for all ages, being rich in starch, protein, vitamin B, vitamin C, fat, carbohydrates, calcium, phosphorus, iron and other minerals.

The economic benefits of planting lotus are guaranteed by three basic values of the plant: ornamental, nutritive and medical. However, due to various reasons, large-scale cultivation of lotus in China only began at the end of the 20th century. Under the state regulations, ten large lotus-viewing areas were created in Hangzhou, Wuhan, Yangzhou, Suzhou, Guangzhou, Xingdu, Yueyang, Nanjing, Weishan and Baiyangdian, to promote the development of tourism. As time went by, people learned to appreciate the lotus more than before. It has become one of the most indispensable elements in urban parks and ornamental gardens,⁵² even becoming a theme of tourism. In 2009, China Forestry Publishing House published a book called *Xunfeng Collection: 2007-2009 Lotus Technology, Culture and Industry Collection* 熏风集:2007-2009 荷花科技·文化·产

业文集,⁵³ including an article entitled “Using the lotus flower as a carrier to promote the construction and development of a new tourism city”. In this article, the author emphasises the cultural values and aesthetic effects of the lotus, pointing out that the plant not only plays an important role in developing tourism, but can also serve as an ornament in the new modern cities.⁵⁴ Since the start of the 21st century, Chinese scientific research on the lotus has continuously obtained new results, providing a rich material basis for beautifying cities and promoting the development of the leisure economy. According to data provided by the—*Journal of Chinese Horticulture* researchers have successfully developed more than 800 lotus varieties, many of which are lotus cultivars that can be divided into three major categories: rhizome lotus, seed lotus and flower lotus.⁵⁵

However, it is deeply unfortunate that the Chinese government only focused on cities in its process of modernisation. As a result, rural areas are completely disconnected from the urban cities’ economic and cultural development. The hundreds of new lotus varieties are generally used to decorate the construction of modern cities, in order to meet the needs of urban residents, but this is not reflected in under-developed rural regions. In the 21st century, most rural areas in China, especially the inland areas, are still in a state of primitiveness and poverty. The basic standard of living is very low, which is in sharp contrast with the conditions of life for urban residents.⁵⁶ In addition, the rural areas have exported a large amount of labour for China’s urban modernisation, which has caused great losses to the rural economy. For those who are left behind, mainly the elderly, the weak and the sick, life is rather difficult.

Due to the above reasons, rural regions in China have lagged behind cities in large-scale lotus cultivation and the development of lotus culture. But it is external factors that have helped some rural areas to take a decisive step forward. In 2014, the farmers in Yangwu village, Changxing County, Zhejiang Province, with the help of Chinese Canadian Xu Guoliang, planted more than 200 varieties of lotus. In order to help the local farmers out of poverty and improve their quality of life, rice cultivation was replaced by this alternative economic crop, taking advantage of local geographic conditions. A lotus museum was later inaugurated. Xu Guoliang and his specialists have also found evidence that lotuses can purify water and restore the function of a waterway. Fish and aquatic species can be raised and grown in these lotus ponds, so as to maximise economic profits. Large-scale cultivation of the lotus is not only beneficial for the environment but also for the farmers’ pockets. This radical

innovation has attracted many urban tourists to the countryside. They have the pleasure of discovering a country lifestyle, while admiring lotus flowers and tasting all kinds of food products made from the lotus. The local farmers can also sell lotus flowers, seeds and roots to townspeople. This interactive way of marketing has markedly increased the farmers' income, while meeting the demands of city dwellers for entertainment and gastronomy. In 2015, the village held the first lotus festival to attract tourists from wider regions. The arrival of numerous tourists has stimulated the local economy, providing revenue for the locals. The experience of Yangwu village has set an example for rural transformation and brought hope to impoverished farmers. However, it will take time, determination and technical support to really promote this transformation throughout China.

Gulin County in Sichuan Province marks a special place in the history of the Chinese Communist Party. In 1935, Mao Zedong and his army passed there during the Long March. In order to fight at the battle of Chishui, they spent 45 days in the county. However, over time, the people in Gulin who were living in extreme poverty were forgotten by Mao and his regime. More than 70 years later, this county is still one of the poorest areas in China. In order to eradicate poverty and to accelerate the agricultural modernisation, local farmers decided to develop rural tourism. Learning from the experience of others, the farmers in Tianba Village brought back some lotus varieties from other regions. Taking advantage of the local natural water resources, a lotus root cultivation base was established in order to enrich the farmers. In 2017, 230 acres of paddy fields were replaced with lotus root cultivation, of which 158 acres were for edible lotus. In 2018, one acre of lotus brought the farmers 5,000 yuan in income. The villagers also planned to combine lotus cultivation with lotus viewing and local sightseeing tours. Their aim is to create multiple lotus-themed activities for the visitors that integrate agricultural sightseeing with holiday making, as well as agricultural sightseeing with real experience. Visitors can also practice lotus-farming activities, such as picking lotus flowers. The villagers hope to receive more than 5,000 tourists annually, so that local income will be improved.⁵⁷ In recent years, agro-ecological tourism has continuously attracted urban dwellers, as many examples show. As an important ornamental plant for agricultural eco-tourism, the lotus has increasingly caught the Chinese farmers' attention. Lotus cultivation has become an extremely effective way to improve the economic situation of these farmers in a short period of time. As long as the quality of the lotus is guaranteed, the financial returns are ensured when the harvest is due.⁵⁸

Farmers in the north where water is scarce, on the other hand, face many difficulties when planting lotus. However, the passion for lotus can make people work wonders. Tang Feng, an experienced farmer of Junyu Village, Runan County, Henan Province, decided to start planting lotus flowers in pots in 2008. By investing in this brand-new business, he hoped to improve his revenue. Although the methods existed for planting lotuses in pots in the imperial gardens in ancient times, the techniques were lost due to historical reasons. In order to rediscover the correct techniques, Tang sought advice and studied in many places. Finally, with the help of Professor Kong Dezheng of Henan Agricultural University and his research team, Tang realised his dream: he succeeded in making lotuses bloom and bear fruit in pots. His success also brought the bonsai art of southern China into a new territory. Ten years later, Tang had collected and cultivated more than 300 varieties of lotus, among which there are even some ancient and rare varieties. To satisfy phototropism and other requirements of the lotus, Tang carefully positioned tens of thousands of pots in his courtyard and in the open space around his house. His collections not only enhanced the environment, but also attracted visitors from nearby cities. He has also gained considerable economic benefits. His lotus bonsais are sold to Shenzhen, Guangzhou and other metropolitan cities, providing an annual income of more than 100,000 yuan. Already rich himself, he passed on his expertise to dozens of other families in the village. By sharing his knowledge of the development of the “lotus economy”, he wanted to help others to have better lives.⁵⁹ Not only that, but he also began to pay attention to the needs of urban dwellers. For example, some lotuses are specially cultivated for balcony gardening. He recommended these lotuses to the residents living in high-rise buildings made of concrete and steel, in the hope that the plants might have an agreeable effect in the cities.

It can be concluded here that there are two major factors that drove the farmers to replace all rice fields with lotus. The first one is linked to Chinese history and culture, and the second one is related to the Chinese spiritual essence. As well as its ability to replace rice, the lotus plant can also improve people’s health. This agricultural revolution is motivated not only by the aesthetic value of this plant but also by what the lotus embodies in Chinese culture. What is crucial for the Chinese farmers is that the economic value of the lotus can relieve them from poverty. The real economic value of the lotus is highly advantageous.⁶⁰ Scientific research has also proved that planting lotuses can purify water and protect the environment.⁶¹

Conclusion

The lotus is also known as *nelumbo nucifera*, classified in the family *nelumbonaceae*. This peculiar aquatic plant has an innate diversity. On the one hand, since ancient times, the lotus has been a symbol of Chinese conscience, allowing people to reflect on themselves. On the other hand, the lotus has practical economic and medicinal values. Its beautiful shapes and colours provide humans with pleasing aesthetics. Its natural characteristics inspired Chinese philosophers and influenced the country's culture and ethics. The lotus is beneficial to the ecological system and embellishes the environment. However, more scientific study and research is required to establish whether lotus cultivation can satisfy the food requirements of people, and whether it can completely replace rice cultivation.

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into 10 parts (Jade, Stone, Grass, Wood, Human, Animal, Poultry, Insect Fish, Fruit, Rice Grain, Vegetable), which are similar to “Zheng Lei Materia Medica”. Each drug style is contrary to the old “Symbols of Materia Medica”, and the content of the drug is classified into 24 items (name, seedling, place, time, harvest, use, quality, color, taste, sex, odor, smell, principle, action, assistance, reaction, system, treatment, combined treatment, prohibition, generation, taboo, solution, pseudo), involving drug form, place of production, harvest season, identification, sex and flavor treatment, compatibility, processing, taboo, etc. There are 1358 color pictures in the book, and the original book indicates that there are 366 new medical pictures. Most of the medical diagrams are redrawn based on the ink line diagrams in “Zheng Lei Materia Medica”, and some are redrawn based on actual objects. It is the only official large-scale comprehensive herbal medicine in the Ming Dynasty, and it is also the largest color sketch book in ancient China. <https://www.wdl.org/zh/item/13513/>

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ABSTRACTS OF ARTICLES

Nelly Blanchard:

Body care and soul care: A typology of the herbs in the medicinal recipes of the autobiographical work of the Breton peasant Julien Godest

Knowledge in popular medicine is generally borne by oral tradition and access to written sources is rarely possible. The presence of a wide range of herbal remedies in the literary work of the self-taught Breton peasant Julien Godest (Plougonver 1849 – Callac 1932), written in Breton language around 1905 under the title *Envorennoù ar barz Juluen Godest (Bard Julian Godest's Memories)* is therefore all the more precious a document as it is unusual. The object of this article is to establish a typology of these medicinal remedies. The focus will be on what types of plants are used, what the wild and domestic plant ratio is, which parts of the plants (the flower, the leaf, the bark, the fruit...), what methods of preparation (raw, decoction, blend, poultice, mixture, etc.) and what methods of administration are used, and finally what diseases are treated by these plants (short-term or chronic diseases, parasitical illnesses, wounds, etc.). Through this typology we will also try to understand what relationship this peasant had with nature, with his close environment, and what his conception of body care in connection with soul care was, within the framework of his Christian beliefs in the organization of the world.

Fabrice Le Corguillé:

Happy in spirit when they smoke: Tobacco as an expression of Native American mediances

When the first explorers of America discovered what they considered as a new “herb” called *tabaco* by Caribbean Natives, they probably were far from imagining that this herb would change the face of the earth and the lungs of its inhabitants. How tobacco has provided the world with a new “mediance,” or sense of a milieu and manifold relationships with the environment, is the purpose of this article.

In North America, tobacco had been universally consumed, used and/or grown by Native peoples, through its nine species, for thousands of years. Its consumption, especially that of *Nicotiana Tabacum*, quickly spread all over the world in less than two centuries. Tobacco can therefore be assessed as *the* product that has made the world definitively united and globalized. The emergence of this “*brand* new world” through the concept of mediance will be thoroughly explored in a first part. Tobacco not only had an impact on human health, it also reshaped world history, economy and demography (expansion on Native lands by the Euro-American settlers, forced removal of Africans to be used as slaves, influence on the American revolution...). Native populations suffered from colonization and the introduction of new forms of consuming tobacco. The damaging effects of these new smoking habits can still be felt nowadays, as Native communities have the highest rates of consumption and addiction in North America. Tobacco, and especially *Tabacum*, is indeed highly addictive due to its content of nicotine. This is why this herb was traditionally considered as powerful and sacred by Native Americans and regarded and used with awe and respect. Tobacco was and still is at the heart of many Native religions, worldviews and ceremonies and informs a particular mediance, an original relationship with the world and its deities, as the last part will show through several examples taken from various tribes such as the Pawnees, the Crows, the Navajos or the Karoks. Tobacco has played a paramount spiritual role in Native communities and still does. Many communities try to come back to a more traditional and respectful, and therefore less compulsive, use of tobacco in order to thwart the impairing effects of addiction. This revival is also an attempt to reestablish a more harmonious relationship between humans as Natives Americans and their environment as well as themselves. Tobacco also played a central role in the organization of their societies as an herb around which hinged many social and human relationships (war, peace, adoption, friendship...). This social dimension of a mediance informed by tobacco will be highlighted in the second part which also shows how the colonization of a continent by Euro-American powers was partly made possible by the (mis)appropriation of an herb considered sacred by the indigenous peoples but perverted into a mere commodity by greedy settlers.

Isabelle Coquillard:*The circulation of knowledge on medicinal herbs in Paris in the 18th century*

The Regents of the Faculty of Medicine of Paris, the medical elite of the 18th century, were expert doctors benefiting from the privilege of practicing in the capital. They had the monopoly of teaching medicine within the Faculty of Paris. Their knowledge in the *matière médicale* enabled them to work out therapeutic cures adapted to the temperament of the patient, thus respecting the Hippocratic doctrines. On the contrary, those designated as *empirical* or *illegal charlatans* adopted the idea of the existence of a panacea.

If the doctors dealt with the diffusion of knowledge on medicinal herbs among their peers, they were also worried about its reception by the other health professionals and by patients, in a system mixing dependence, restrictions and challenges to the medical, political, economic and scientific powers.

The different sources, whether medical and erudite (such as professional or non-professional newspapers, official and scientific correspondences, medical treaties), historical and pertaining to society or economics (such as inventories after the death of doctors, the taxation of imported products) or cultural (such as travel literature), help one to understand how a division of the medical labour could be recomposed and structured around the medicinal herbs intended for the patients. The choices of the patient were decisive in the success of the therapeutic cure containing plant remedies.

As particular products, medicinal herbs question the capacity of the doctors to evaluate, integrate and diffuse new knowledge and remedies among peers, health professionals and laymen. Developing a negotiated control of the profession of herbalist that they contributed to legitimate, doctors sought to dominate the process of marketing of local and foreign medicinal herbs. They are shown as wary of the integration of foreign medicinal herbs out of ignorance, economic concerns and fear of seeing local medicinal herbs forsaken and their therapeutic cures discredited.

Laurent Gall:*An interpretative essay of the Breton pharmacopoeia: An ethnobotanical approach*

This paper envisages a synthesis of the corpus of Breton ethnobotanical surveys. It is based on an interdisciplinary approach that focuses on the contributions of ethnology - on the representations, the popular classifications and uses of plants -, of linguistics - ways of naming the plant -, of botany and of phytogeography – the geographical distribution of plants. Shedding fresh light on the place occupied by plants in local knowledge, it provides a commentary on the geographic disparities internal to the region as well as a recent social history of medicinal and food herbs.

There is a gradual increase in knowledge from the center to the coast, from rural to peri-urban areas and from the west to the east of the region. The analyses thus tend to present a relatively cautious attitude of the western population towards medicinal and food herbs, as well as mushrooms. Health care is preferentially external (epidermis, eyes, joints, respiratory sphere, etc.) and less diversified than in the east. The refusal to ingest wild plants may result from a social construction which reflects a desire of this peasant environment, more modest than many others, not to be assimilated to an archaic world.

Linguistic support for the interpretation of popular flora partly reveals the nomenclature of plant names and underpins the understanding of the conceptualization of the relationship to plants. The study of ethnobotanical markers - hawthorn, elderberry, angelica, fruit trees, etc. - makes it possible to locate the geographical variations in vernacular knowledge or their absence in certain sectors.

In terms of the recent dissemination of knowledge, surveys indicate a lack of updating from the second half of the 19th century and the first half of the 20th century of this local naturalistic knowledge in Brittany, compared to the rest of France.

Renata Palandri Sigolo:*Healing through plants: Relationships among knowledge systems in the Brazilian press of the 1970s*

Throughout the 20th century, the pharmaceutical industry established a solid market in Brazil. Products of foreign origin and their marketing

strategies affirmed industrialised drugs as a rapid and effective ‘solution’ to health problems, a product of biomedical science. However, this same science is now subject to strong criticism not only due to iatrogenic concerns but also to its conceptions of health, disease and body that generate dissatisfaction amongst certain users and healthcare professionals. This discontentment belongs to a larger context that emerged in the 1960s as a criticism of technobureaucracy and consumer society, which generated other ways of interpreting the world. In healthcare, this dissatisfaction with biomedical science was responsible for promoting alternative medicines, wherein medicinal plants play a vital therapeutic role.

Focused on this context, the main objective of this article is to analyse the construction of social representations related to health and disease formed from the dissemination of the use of medicinal plants in Brazilian newspapers during the 1970s. This research aims at outlining the ways in which medicinal plants are addressed in the *Jornal do Brasil* (Rio de Janeiro) and *Diário de Pernambuco* (Recife), as well as the images they draw about the medical universes to which medicinal plants belong. Both newspapers were chosen not only for their importance and wide circulation during the proposed period, but also for providing a certain break in a history of Brazil centred on the Rio de Janeiro-São Paulo axis.

Newspaper articles and advertisements reveal the diversity of representations of health, disease and healing in relation to three different approaches: the use of medicinal plants in folk medicine, in biomedicine and in alternative medicines. Some pairs of opposites are part of these representations – such as tradition and progress, rural and urban, natural and artificial – highlighting narratives that indicate not only a rich diversity but also disputes for the hegemony of the use of medicinal flora as a therapeutic resource.

Florence Charles:

Perceptions of the nettle in four stories: A narrative and semantic itinerary

The nettle is a very common herbaceous plant. It gives rise to composite, even contrasting perceptions. For example, it is renowned not only for its nutritional, therapeutic or fertilizing virtues, but it is also known for its urticating properties, as a trigger for redness and itching of the skin, and is also considered as a weed.

This contribution will focus on the imaginary, or more precisely, on representations of the nettle as a fictional element in four stories from

children's literature. In connection with the generic characteristics, this contribution will first examine the characters, principal motifs and associated ideas, and narrative occurrences of the nettle. This initial comparative study will determine the semantic and axiological values of the nettle as a fictional component in the four stories under consideration, in other words, it will enable a symbolic scope to be defined.

Ullrich R. Kleinhempel, Igor O. Klimov:

Seeking the Fern Flower on Ivan Kupala (St. John's Night)

This essay describes a mythical 'herb', the 'fern flower', and its symbolism, in the complex of rituals celebrated in the summer solstice festival of *Ivan Kupala*, on *St. John's Night*, in Slavic countries. At present the festival is publicly revived and celebrated in affirmation of ethnic identity and culture. An earlier retrieval began in the 19th century, as evidenced in art and literature, to which we refer.

The festival stems from pre-Christian times. It is described in early Russian chronicles. It preserves Pagan symbolism and magic ideas. During *Ivan Kupala* several herbs are collected, for healing, divination, and magic. The 'fern flower' symbolizes good fortune in love. According to folk stories it can also show the way to riches. It is described as elusive, appearing only in spiritual perception, and as guarded by spirit forces, some of which can be malevolent. Mishandling is said to bring misfortune. The erotic symbolism of the search remains most significant.

In this essay the origins of the rites of *Ivan Kupala* are traced. A semiotic perspective is applied here, together with history of mythology and ritual, following Michael J. Witzel's work on the origins of world mythologies. In this way ancient relations between *Ivan Kupala* and ancient Chinese, Indian, Japanese, and north-western European myths and solstice rituals are traced. Their common features are to connect love and fertility to 'purification', to spiritual renewal, to magic observance, to the transcendence of bondage in time, through divination, to celebration of the 'fullness of life' and of readiness to sacrifice. The ecstatic is contained in a higher order. The festival combines the natural and the super-natural, the profane and the transcendent, through ritual and symbolism.

Alice Fengyuan Yu, Shan He, Dian Li:*From beauty to civility: Writing about and displaying herbs in China*

Herbs, known as *xiangcao* (香草) and *caoyao* (草药) in Chinese, have played a crucial role in constituting Chinese culture and history. Both a material object and a sociocultural sign, herbs become the very site of interplay between everyday life and literary expressions from traditional to contemporary China. In such a context, this paper traces the representation and visualization of herbs in Chinese literature and culture from the pre-Qin era (221 BCE) to the 21st century. By examining herbs in various types of genres and texts, we intend to address the following questions: How do herbs become the frequently-used imagery and motif in classical poetry? How does the writing of herbs innovate with the emergence of new literary genre—fiction—from the early modern time onwards? What role do herbs play in forging and exhibiting an urban space in contemporary China? By answering these questions, our study attempts to unravel the relationship between the visualization of herbs, the reimagination of traditional culture, and the symbolic power of China in the transnational context. Engaging with the scholarship of literary criticism and cultural studies, we aim to explore not only the diachronic genealogy of writing herbs in Chinese literature, but to decode the sociopolitical connotations of writing and visualizing herbs at different venues. Eventually, this paper argues that on the one hand, herbs have become a signifier indexing the modalities of literary and cultural life in China; on the other hand, the way herbs are used, written, and visualized will continue to reflect the human desires and the world in a state of change.

Madeleine Savart*From healing plant to second “tree of life”: Annedda’s cultural journey across the Atlantic Ocean*

From 1535 to 1536, Jacques Cartier undertook his second expedition to North America with the blessings of the French King François I. During the winter of his voyage, many members of his crew contracted a serious illness. They were cured by an indigenous medicine shared with them by Domagaya, son of Donnacona, the Iroquois Chief with whom they had commerce. Stunned by the power of this therapeutic plant, *Annedda*, Jacques Cartier decided to return to France with it and to arouse the King’s interest. This endeavour failed, and in less than a generation, the plant became unidentifiable in the King’s garden of Fontainebleau. Far from

adopting an indigenous perspective on plants and medicine, the French captain viewed the plant as a commodity with economic value. Likewise, the Canadian forest in which *Annedda* grew was seen less as an ecosystem and more as a reservoir of future profits.

Françoise Fischer:

Medicinal plants and the myth of the Mennonite sorcerer

Mennonites are a religious minority founded in Switzerland as part of the Radical Reformation. They are particularly present in France, especially in the East (Alsace, Jura). They had and still have a reputation as tireless and brilliant farmers. Persecuted since the mid-16th century, they left the Swiss cantons to find refuge in the territories of lords interested in their talents. Very often, these lands were not very fertile, as was the case in the Bruche Valley, between the Vosges and Alsace, in the 18th century.

In this context of clandestinity, it was impossible and dangerous to call on local doctors and bonesetters to treat the Mennonites and their precious livestock. Thus, the Mennonites created a deep knowledge of herbal medicine thanks to their careful studies and passed on this knowledge not only through oral but written transmission as well, as evidenced by post-death inventories and travelers' accounts. This science of medicinal herbs was intended for the group, but little by little the Mennonites became involved with the local population. The elders were known for their knowledge in this field and this is how the myth of the Mennonite sorcerer, the “Soyou”, was created as he uttered magic words while caring for and handling his medicinal plants.

The knowledge of medicinal plants contributed to the survival of this religious group while also establishing the myth of the Mennonite sorcerer whose knowledge of medicinal plants and healing powers are called upon by the local population, despite fears and differences. In this contribution, we therefore explain the origin of this knowledge, the importance of medicinal plants in the Mennonite group, and the myth of the Mennonite sorcerer.

Molly Chatalic:

Worth more than gold: the Tibetan herb craze. Economic, social and environmental stakes of 'yartsa gunbu'

Among the many resources currently coveted in Tibet, such as water and minerals, one stands out in particular as it is considered as a very valuable herb which can reach prices similar to that of gold. Indeed, 'yartsa gunbu' (Tib.), which translates as 'summer grass, winter insect', has reached extremely high prices for a mushroom which is what it actually is. Tibetans harvest it on the high plateaux but it is mainly bought by Chinese consumers for whom it represents an important natural supplement for vital energy. However, for many Tibetans, who are struggling on the job market and in the Chinese economic system, it represents a vital source of income which finances their rents, food stocks, studies and even migration and exile. Will the constant increase in its exploitation for commercial gain eventually pose a threat to the durability of this resource? More and more research is being carried out on this mushroom, by both Chinese and Western specialists such as David Winkler and Alessandro Boesi. The next step may be its reproduction in laboratories and its commercial exploitation in the West. We will thus consider the economic, environmental and scientific stakes of this 'herb' and valuable natural resource of the high plateaux of Tibet which has now entered the Western market as well.

Hamza Ayari, Soubeika Bahri:

Ecology and recent valorisation of rosemary in the northern regions of the 'El Kef' Governorate in Tunisia

Rosemary represents a local richness in the extended Aleppo pine forests in northern parts of El Kef governorate in the Tunisian High Tell. This region is ecologically optimal to the growth of rosemary. The lack of a tradition and know-how in the distillation of aromatic and therapeutic vegetable species has led to the abandonment of enormous potentialities in this forest resource. Lately, transhumant operators in growing rosemary from the High Steppes, particularly from Weslatia near Kairouan, who specialize in growing rosemary, have intervened to promote this distinctive herb in northern parts of El Kef governorate. Despite the transmission of knowledge from these farmers to the local workforce, huge areas of rosemary remain underexploited. This paper is an attempt to study rosemary's growing conditions in the High Tell region in Tunisia. It unfolds in four stages: in the first section, we provide an overview of

rosemary's ecological properties in the High Tell region. In the second section, we demonstrate the methods and processes of its recovery. In the third section, we look at its oil yields. In the fourth section, we examine the various constraints hindering its exploitation in the region under investigation.

Céline Lesourd:

On the borders of khat: That other's – bad – herb

Chewing khat leaves in search of their stimulating properties was long confined to the Muslim populations of eastern Ethiopia. Today, the leaves are grown in Madagascar, stripped by orthodox Christians in Addis Ababa, traded through Chinese sellers in Canton and discreetly chewed in London. Despite national prohibitions, by weaving their web across the world, by moving from a domestic economy to a cash economy, these leaves have been erected like so many social and political frontiers that (re)draw lines of tension and power relations both where they initially grow and on the national and international levels.

In a diachronic perspective, our contribution proposes to retrace the circulation of this khat: in Ethiopia, first of all, where it emerged belatedly from its original gangue, while it quickly moved from one trading post to another in the Muslim Horn of Africa or towards Yemen and Madagascar; finally, in the 1990s, it followed in the footsteps of the diasporas, notably the Ethiopian and Somali ones, towards North America and as far as Oceania. The aim here is to sketch out a cartography of khat in relation to the pragmatic conditions that encourage its expansion - land saturation, falling coffee prices, the development of modes of transport, youth protest, massive emigration - and those that hinder it - namely the multiplication of prohibitions that exporters strive to circumvent despite the risks of seizure. Beyond that, these circulations and their obstacles transform the social representations of khat by influencing its affective value: continually disparaged by some but praised by others, this branch acts as a marker of borders, a witness to communities (re)crystallising and constantly reinventing themselves. Amharas. Oromos. Somalis. Orthodox Christians. Muslims "from here" versus Muslims with practices from Saudi Arabia - these identity-based antagonisms are all the more vigorous because global trajectories have upset the financial value of khat. Thus, the revenues generated, and their actors, must be monitored and controlled, because, seen from the Ethiopian central power, the sap of khat sometimes still has the taste of yesterday's regionalist struggles while, seen through the lens of

the American *War on Drugs*, it is denounced as a threat to national and international security.

Yue Yue:

Nelumbo nucifera Gaertn.: A Chinese spiritual symbol and source of prosperity

According to a report by China's Xinhua News Agency on July 10, 2019, the town of Baipeng near Liuzhou, Guangxi province, decided to replace the cultivation of rice with that of the lotus, abandoning a thousand-year-old agricultural tradition. Since giving up a staple food production is directly related to the local population's survival, what were the reasons for this earth-shaking change? In order to improve living standards and to shake off poverty, the local council decided to switch from rice to lotus, turning all rice fields into lotus cultivation bases. Growing lotuses as a commercial crop is also a way of taking advantage of existing experience and techniques. In the face of such a bold and thorough agricultural reform, we can only wonder whether it is a scientifically sound and feasible one or whether the large-scale cultivation of lotuses can really improve farmers' living standards. To answer these questions, our article is divided into three parts to study the eventual outcome of this agricultural revolution decided by Baipeng Town.

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The intense work on this project is finally finished at a time when the whole world is suffering from the Covid-19 crisis, aggravated by the arrival of variants of this great enemy of all humanity. However, the fight goes on whatever the field. This work on the relationship between herbs and humanity is the result of the combined forces of researchers from different countries. Following in the footsteps of our elders and exploring new avenues, this collective work brings a drop of fresh water to the ocean of thought on human beings and their relationships with their environment.

On this last page of the book, we would like to thank, on behalf of the team that gathered these texts, our colleague Anne Le Guellec-Minel, who helped us from the beginning of the project with kindness and benevolence. Many thanks to you, dear Anne. Special thanks as well to our colleague Murielle Balaïan who proofread the chapters in French.