Yunnan flowers: storying cross-species love beyond metaphors

Fleurs du Yunnan : raconter l'amour entre espèces au-delà des métaphores

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Flowers seem to be quite natural beings. Humans enjoy the beauty of nature as they pass by a city park or along a rural lane where wildflowers group together in enormous clusters or are discreetly scattered across the undergrowth. The abundance of floral varieties and their colourfulness can energise even the most insensible mind. This is what a world of flowers can do to the world of humans. Yet precisely because of this power, humans often go beyond pure appreciation to ‘the most outrageous fantasies of domestic control’ (Tsing 2012: 144). Flowers have thus joined a vast array of animals and plants domesticated over a history of human exceptionalism (Haraway 2003). However, many varieties of fresh-cut flowers would not even exist if it were not for ornamental breeding. Breeding is a centuries-old activity of domesticating natural varieties. Note that breeding does not imply that humans capture a natural flower variety to make something new and popular out of it. Rather, breeding is accompanied by spontaneous mutation, natural selection, resistance testing and more. Professor Li of the Flower Institute of the Yunnan Academy of Agricultural Sciences explained to me the time-consuming procedures for breeding flower varieties. Generally speaking, it takes more than ten years for a newly bred variety to acquire a stable genetic form that is suitable for mass cultivation and commodification.

Human interference in the life forms of flowers extends beyond breeding to flower nurturing, flower transactions and delivery, and to bouquets-in-the-making. With their bulk quantities of flowers, flower traders are night owls, having to stay up late to finish transactions and to deliver the goods early to guarantee the freshness of the flowers. A florist co-becomes with her bouquet-in-the-making as she navigates through the arrangement of various flower varieties, colours, shapes and the meanings represented by each variety and colour. Fresh-cut flowers and their human counterparts along the commodity chain are mutually associated in becoming with each other. For the sake of this paper alone, I focus on the relationality of flower growers and their flower crops in
the fields of Yunnan, China. As described in the following ethnographic stories, flower growers and flower crops become mutual kin.

**Yunnan flowers**

3 ‘Yunnan flowers’ (yunhua, ‘云花’) refer, quite literally, to flowers grown in Yunnan Province, southwest China. It also refers to a national brand with the potential to compete with Dutch flowers by occupying a larger global-market share. Though the famous Aalsmeer flower market outside Amsterdam is the largest flower market in the world, Dounan flower market in the central part of Yunnan Province is the largest fresh-cut flower wholesale market in Asia.³ Flower cultivation is a mass industry in The Netherlands where vast spaces covered in steel-framed greenhouse facilities support the automation of irrigation, fertilisation, biological pesticide application and soilless cultivation systems. At the same time, high labour costs (among other factors) prompt some companies to turn to outsourcing in South American or African countries, especially for the commonest flower varieties (Ziegler 2007, Hughes 2001). On the other hand, Yunnan flower growers have planted flower and vegetable crops side by side since the 1980s and, like vegetables, flowers in Yunnan have been sold by weight. Up to this day, many flower growers in Yunnan alternate flower and vegetable cultivation depending on their fluctuating market value. In fact, more than 90% of flower growers in Yunnan are small-scale and household based. As a result, the flower industry is scattered over Yunnan, poorly equipped and somewhat pre-industrial.

4 A large number of Yunnan flowers are earmarked for China’s domestic market. This coincides with the modern capitalist mode of production which forces farm labourers and producers to make a living under precarious conditions, while more affluent consumers’ purchasing power increases thanks to the availability of cheap labour in the Global South (Wolf 1999). Studies on global commodity chains (Hanson 2000, Hughes 2001, Freidberg 2004, Ziegler 2007, West 2012, Tsing 2015, Tucker 2017) elaborately showcase the structural inequality that often results from global capitalism, which in many cases emerges from a colonial history. To some extent, Yunnan is China’s ‘global (domestic) south’, while the flowers’ target consumers live in Beijing, Shanghai, Guangzhou and Shenzhen – the four megacities with the highest per-capita income in China since Chinese economic reforms in late 1970s. Located at the periphery of the Chinese nation state, Yunnan has been perceived both empirically and academically as a region accommodating abundant natural and ‘cultural’ resources (the latter refers primarily to its many ethnic minority groups). Yunnan is known for the cultivation of Pu’er Tea (Zhang 2014), the production of Shangri-La wine (Galipeau 2017), the plantation of Arabica coffee beans as early as 1902 (Pang and Mo 2018) and its matsutake mushroom landscape (Hathaway 2022). Since 2016, Yunnan Provincial government has launched a project to develop ten key sectors of modern agriculture: pig rearing, cattle and sheep farming, vegetables, Chinese herbal medicines, tea, flowers, walnuts, fruits, coffee beans and edible mushrooms. These ten key modern agricultural sectors are supposed to represent the characteristics of and at the same time boost the economy of the Yunnan plateau, which supposedly lags behind the national average. Another set of literature on Yunnan pertains to ethnic minorities. Topics such as ethnic tourism, cultural appropriation and identity formation set
China’s southwest region (Yunnan included) against a Han-dominated narrative (eg Schein 2000; Tapp 2006; Chio 2014).

This article, however, situates Yunnan outside China in a Himalayan context for the benefit of placing one of its ‘natural’ resources at the centre of inquiry, namely fresh-cut flowers, without reducing it to an intermediary vehicle between structurally imbalanced regions. In echoing a call for Himalayan studies within environmental humanities, where anthropogenic transformations of nature upset the clear boundaries between nature and culture, humans and non-humans, and life and not-life (eg O’Gorman and Gaynor 2020, Tallbear 2017, Bawaka Country et al 2013), I situate Yunnan flowers in the realm of ‘multispecies studies’ (eg Kirksey and Helmreich 2010, Ogden et al 2013, van Dooren et al 2016) by refiguring an entanglement of relationships emerging from processes of ‘co-becoming’ or, according to another terminology, ‘becoming with’ (Haraway 2003, Ingold 2013) between flowers and growers. This co-becoming narrates a lively world wherein multispecies relationality reveals cross-species love beyond metaphors. As Donna Haraway argues, when species meet, humans and others are ‘partners-in-the-making through the active relations of coshaping’ (2008: 208).

This article contributes to the scope of Himalayan studies which, in some respects, bring to light indigenous knowledge at the periphery of nation states but at the centre of transboundary commons (eg Miller 2020, Wouters 2020, Rippa 2019, Besky 2014, Winkler 2009). Therefore, instead of mapping the flow of fresh-cut flowers within the political economy of China or the global networks of flower consumption, I shed light on the ‘indigeneity’ of Yunnan flower cultivation. This indigeneity, as opposed to modern agricultural technologies to facilitate production, draws our attention to how small-scale growers in Yunnan nurture flowers as their kin. These Yunnan flower growers are more than petty capitalists who moralise about their exploitation of the eastern Himalayas’ fertile land. They do not resemble, for instance, Darjeeling’s tea plantation workers who, in Sarah Besky’s ethnography, apply kinship metaphors to describe their ‘tea-bush “children” or caring plucker “grandmothers”’ (2014: 63), so that workers can reach an agreement about labour for the generations to come. Darjeeling tea labourers’ fictive kinship-making with tea bushes is affective but oppressive because of the colonial history of tea plantations in trans-Himalayan regions (Besky 2014). In a different vein, becoming kin with flower crops in Yunnan is how multispecies relationality and, accordingly, cross-species love are initiated, instead of being the result of the structural inequality brought about by colonialism. Thus, it is beyond the metaphorical sense of legitimising the impasse of global capitalist commodities.

The historicity of flower cultivation in the Himalayas/ Yunnan

In principle, flowers can be nurtured anywhere in the world with the right technology and equipment. Suitable climate conditions make flower cultivation in Yunnan a cost-effective business with the additional benefit of mass production and year-round cultivation. Located on the eastern edge of the Himalayas, Yunnan is made up of low-latitude and high-altitude plateaus with dry, cool winters and mild summers, and exposure to strong ultraviolet rays. These favourable weather conditions are conducive
to the mass cultivation of flowers, especially varieties of roses, carnations and lilies that dominate China’s consumer market (roses making up the largest part). Many areas around the capital city of Kunming and the Dounan flower market are dominated by a landscape covered in flowering fields, although not every inch of land in Yunnan is optimised for it (Figure 1). An ancient proverb reveals just how unpredictable weather conditions in Yunnan are: ‘[There is] different weather a few miles out in Yunnan’ (Yunnan shili butongtian, 云南十里不同天). There are many ‘local climates’ (xiaoqihou, 小气候) with which one can become familiar over the years by living alongside the flower crops in the field. A very seasoned carnation grower, Zhang described two types of floriculture experts: academics who work in air-conditioned offices at institutes of agricultural science and farmers like himself whose agricultural knowledge has been acquired through daily contact with flower crops in the field and by years’ experience of nurturing flowers. Zhang values the importance of the latter in cultivating good flowers. The ‘local knowledge’ (Nazarea 2006) about flower maintenance goes well beyond the scope of any formalised user manual and standard procedures.

Fig 1: Approximate location of the main fresh-cut-flower producing areas (in the area encircled on the map) in Yunnan

Zhang’s profile typifies the gradual development of the flower industry in Yunnan and is representative of the Yunnanese flower industry as a whole. In the late 1980s, Zhang started by growing gladioli alongside other vegetable crops in Dounan on 0.3mu (0.05 acres) of land. In the 1990s, Zhang upgraded to a production area of 80mu (13.17 acres) devoted to nurturing carnations and gladioli in an area 70km southwest of Dounan. In the 2000s, Zhang set up a flower production cooperative in Dounan to collect carnations from numerous small-scale growers in nearby areas. The cooperative sorted
the carnations into different colours, varieties and qualities according to customers’ orders. Meanwhile, Zhang provided technical guidance to the carnation growers within his cooperative. Like Zhang’s personal trajectory from flower farmer to flower entrepreneur, the flower industry in Yunnan started in Dounan village and has since expanded to nearby areas of central, eastern and southern Yunnan. Dounan has thus gone from a flower-producing village to a flower-business hub where business involving tons of fresh-cut flowers is transacted, and goods are transported and delivered daily from the fields to Dounan and from there to many other cities across China.

9 Fresh-cut flowers from Yunnan are transported to the Dounan flower market daily for sale and distribution. The surrounding areas – a two-to-three hour car journey from there – are dominated by fields of varied flowers. Since the 2000s, cooperatives run by entrepreneurial farmers have been able to harvest yields daily to constitute a sufficient stable supply and result in better profits. And, in the 2010s, some of these cooperatives became large-scale companies by merging with more and more smallholders. Large flower-producing companies occupy vast areas of land and are equipped with advanced agricultural facilities. Aside from these domestic enterprises, three other large flower-producing companies have been set up thanks to investments from the Netherlands. However, instead of coming under the national brand ‘Yunnan flowers’, the produce of these companies is identified under their own foreign brands. Yunnan is simply their source of supply, the veritable global south. Combining their centuries-old techniques of nursery cultivation, modern marketing strategies and their status as ‘foreign’, ‘imported’ and thus ‘advanced’, these large flower companies financed by European investments occupy a large portion of the high-end, fresh-cut flower market in China.

10 The fresh-cut flowers that are now popular commercially have a century-long history of domestication. Some flower varieties are reserved for perfume-making, others are appreciated as ornamental plants in bouquets or are grown as bonsai and in Yunnan some edible varieties are baked in flower pies. Fresh-cut flowers used as ornamental plants are the focus of this discussion. In and beyond the context of China, the consumption of fresh-cut flowers is seasonal due to constructed symbolisms attached to flowers (Goody 1993). Most of the time, people buy flowers to offer them as gifts. On Valentine’s Day, for example, millions of bouquets of roses are purchased as gifts to express romantic love. During the tomb-sweeping seasons in China, white and yellow chrysanthemums are brought to graveyards to commemorate the dead. Likewise, there are carnations for Mother’s Day, sunflowers for Teacher’s Day and lilies for what are auspicious wedding days according to the Chinese lunar calendar.

11 The fresh-cut flower economy is time-sensitive. At the approach of festivals such as those mentioned above, there is a rise in the prices of desirable flower varieties. Once a festival is over, prices drop dramatically. Rose growers in Yunnan would not want to miss out on Valentine’s Day on 14 February, ‘520’ on 20 May or the Qixi Festival, which correspond to three major periods in the year for selling roses. Growers employ all the growing techniques they can muster to control when their flower crops mature and start to bloom. How well growers can accurately control flowering times indicates their ability to nurture flowers. Growers acquire their skills mostly from their own experience, with more than 90% of the flower farms in Yunnan operated by smallholders who lack advanced agricultural facilities and textbook-based floricultural knowledge. Inexperienced growers sometimes see their roses mature and flower by
mid-January, leaving them with no choice but to cut them and sell them as off-season commodities. Had the roses been left to mature one or two weeks later, shortly before Valentine’s Day, they would have earned the grower ten or twenty times more.

Who grows the best roses in Yunnan?

‘Who grows the best roses in Yunnan?’ is a question I asked to provoke discussion among my interlocutors during fieldwork. Some respondents gave brand names; others referred to local companies that have been nominated by the provincial government to represent floriculture in Yunnan. Most remarkably, some argued that the best quality flowers come from growers who only have a small field of 2–3 mu (about 0.33 acres). As one flower trader explained, ‘They [the flower growers with the smallest production area] give the best care (to their flowers). They have time to visit (their flower crops) many times a day.’ I visited flower-growing fields of various sizes, from 2–3 mu fields growing sunflowers with no greenhouse facilities to steel-framed rose-growing greenhouses covering dozens of mu. To my inexperienced eye, large companies differ from smallholders only in the size of their greenhouse facilities. In other words, I could not tell simply by walking through the flower fields, which of the two grew better flowers.

A rose grower, Panjie, and her husband, Lige – together with the help of her parents-in-law – operate a rose production area of 40 mu (6.59 acres) on the east side of Dounan. For about three hundred days a year, Lige drives a medium-sized truck loaded with roses to the Dounan flower market located two hours away from their fields. During the Valentine’s Day season, a full truckload of roses would be worth over CNY100,000 (around USD 15,000). Off-season, a truckload of roses would only fetch several thousand CNY (around USD 1,000). In order to get their rose crops ready on time (that is, to sell them for Valentine’s Day), Panjie starts preparing them in November of the previous year. She first prunes the rose bushes and sets up rose stumps. When the stumps sprout, she applies fertiliser to boost their growth. When the sprouts turn into branches and new leaves emerge, Panjie sprays pesticides to contain red spider mites. During wintertime, depending on the temperature, sunlight, humidity and so on, it takes 60 to 90 days for a rose sprout to grow into a bud. Not all buds reach the same level of maturity simultaneously. In winter, harvesting them takes place over a period of about 20 days. For Panjie, it is best to have as many roses as possible to pick in the first one to two weeks of February. For any rose grower, missing the peak season in the lead-up to Valentine’s Day means losing out on the most profitable time of the year.

Even though roses are cultivated in greenhouses, the natural environment has a huge influence on their growth. An extremely cold winter slows down the time it takes for roses to flower or even prevents plants from flowering at all. A sudden outbreak of frost retards the maturation of plants. In summer, scorching heat suffocates plants in their greenhouses. Excessive rainfall increases humidity which allows pathogenic microorganisms attached to petals to develop. These capricious weather conditions create extra difficulties for Panjie when it comes to controlling the flowering time of her roses. However, as an experienced rose grower, Panjie is confident about her roses. As she puts it:

I have been growing roses for more than ten years. For me, growing flowers is like raising children. Both need close attention. Over the years, I figured out almost
everything about roses except for the soil. Soil improvement takes great effort and investment. Those big companies enjoy good facilities. They have ventilation installations, auto-lighting, soilless cultivation technology and temperature control systems. Their greenhouses are made of steel and extend over hundreds of meters. They are good at controlling when the flowers ripen. But that doesn’t mean they grow better-quality flowers than we do. I cultivate my roses with my heart. Applying fertilisers and pesticides involves experiential knowledge. It’s about how and when to use particular kinds of fertilisers and pesticides, and how to mix them to maximise their positive effects, while minimising possible phytotoxicity. I learned these techniques step by step, year after year.\(^4\)

The general manager of the flower auction market in Dounan corroborated Panjie’s assumption that smallholders in Yunnan’s flower industry probably produce better quality flowers than large companies. He said it took him years to finally believe smallholders can grow better flowers than large companies; but over time he discovered that advanced greenhouse facilities were less important than growers’ ‘strong sense of responsibility’ (ze ren xin, 責任心) towards their flower crops. Since they are paid for piecework or a fixed salary, labourers hired by large companies tend to aim for efficiency at the expense of the delicate treatment of rose stumps. Thus, when it comes to the next harvest, fewer rose branches sprout from the roughly handled stumps. Nevertheless, large companies can afford to constantly replace old rose stumps with new ones. In fact, they are willing to do so in pursuit of rare flower varieties that have become a market trend. By contrast, smallholders handle their flower crops more carefully to reduce costs. Careful examination of the rose stumps can help optimise the plant’s life.

The auction market in Dounan is one of Yunnan’s hubs for flower transactions and deliveries. According to the logic of commodity transactions, flower supplies earmarked for the auction market are sorted into four quality grades, from the highest A to the lowest D. Auction market statistics show that large companies supply the highest percentage of good quality flowers (A and B grades), which leads to the misconception that large companies produce better quality flowers. Given the image of large companies as being equipped with advanced agricultural technologies, it has been taken for granted that the progress made by agricultural modernisation equates with better products, in this case with better quality flowers. In fact, roses of all grades are produced within a unit area. Even from a single rose stump, there are stronger, taller branches graded A or B and skinnier, shorter branches which are classed as C or D grade. Since large companies occupy vast areas of cultivation, the absolute number of their A and B grade roses is huge. But in terms of unit area, as some interlocutors point out sarcastically, large companies cannot compete with smallholders.

One interlocutor, who operates a relatively large rose-growing company, stated: ‘when it comes to agriculture as business: the more the investment, the lower the risk’. If a hailstorm destroys the plants of hundreds of small-scale growers who are equipped with bamboo-framed greenhouses, those who survive can make a fortune because the market supply will be lower over the next period. And those who survive such an onslaught are always those who have solid greenhouses.

Take for example Valentine’s Day 2020: flower growers in Yunnan suffered huge losses regardless of the scale of their production. The reason was supposedly the Covid-19 pandemic. During that time, all transportation was suspended. As the media showed
with exquisite pathos, flowers matured in time but rotted in the fields. There was no transportation, no marketplaces for transactions and few consumers. Flower entrepreneurs at various points along the commodity chain missed out on this Valentine’s Day selling season. Panjie’s family also suffered huge economic losses during that period but, to my surprise, it was due to capricious weather conditions rather than to Covid. Just before the pandemic broke out, an extremely heavy hailstorm resulted in the collapse of a large number of bamboo-framed greenhouses in Yunnan and crushed the flower crops inside them. The bamboo-framed greenhouses could not sustain the weight of heavy rains, let alone the hailstorm. Thus, small-scale growers had already lost all their business before the pandemic paralysed the global flower economy.

19 Panjie’s family had supplied the auction market for years, until they later expanded their cultivation area, bought their own truck for transporting flowers and therefore found an alternative way of selling on Dounan’s spot market. There is no need for flowers traded on the spot market to be graded. This is greatly appreciated by Panjie who complained about huge price differentials among her roses grown in the same field, the same greenhouses and even on the same stumps. Her husband Lige showed more discernment regarding the consumerist logic that commodities need to be discriminated to promote distribution and reinforce social class stratification.

20 Another reason why Panjie’s family stopped supplying the auction market was soil degradation. It had initially been easier to cultivate good quality roses because the soil was rich and nutritious. After a few years, this became harder because of continuous cropping, which prohibits the plants’ growth potential and compromises the yield and quality of the produce. A and B grade roses can be auctioned at good prices, but bids drop dramatically for C and D grade roses. If C and D grade roses make up a large percentage of the yield, it would be more profitable for small-scale growers to trade them on the spot market without sorting them into grades.

21 To facilitate the growth of flowers in degraded soil, most growers apply fertilisers as the most efficient and affordable solution. However, the overuse of nitrogen, phosphorus and potash (NPK) fertilisers deteriorate the soil: this multivalent subject goes beyond the concern of environmental protection. Michael Hathaway’s (2013) monograph presents a comprehensive discussion on the interrelations of the global perception of environmental protection, the networks of environmentalists and the effects of environmental policies in Yunnan. The current solution to soil damage due to flower cultivation is soilless cultivation, which is beyond the reach of 90% of flower growers in Yunnan in terms of investment capital, incentives and technological know-how. Besides, soilless cultivation – despite improving the effectiveness of fertilisers without discharging chemicals to groundwater – requires automatic greenhouse facilities, the construction of which would release more carbon dioxide and further intensify climate change.

22 I brought up the environmental issue with many interlocutors and received three kinds of response. One was to treat it as a taboo subject. Another, from local government, dealt with it as a legitimate pretext to impose new but not necessarily useful policies and restrictions on the Yunnan flower industry. In fact, most government policies benefited large-scale growers while proving burdensome to small-scale growers. The third response came from most small-scale growers who have witnessed soil deterioration first-hand over the years. Echoing Panjie’s feelings of helplessness with
regard to soil quality, another small-scale flower grower said, ‘we have no other choice, though we know using fertilisers accelerates soil acidification. In a few years, there may be no flowers growing on this land. But for now this is our livelihood.’

Becoming kin with flowers

Fresh-cut flowers are not natural after all. They are products of intensive human labour. Unlike the matsutake mushrooms growing on remote feral land (Tsing 2012, Hathaway 2022), fresh-cut flowers are grown from intricate entanglements of human relations. Flower cultivation is contrived and is largely designed for aesthetic purposes, even though flowers are often seen as natural things. It is one example of millions of successful domesticaions by human beings. It would take the knowledge of the most widely read naturalists to tease out all the historical contingencies that have led to roses becoming symbolic of love, for which Valentine’s Day became the designated holiday and was conventionalised on 14 February. It is historical contingencies that frame the flower economy.

Under the human-influenced economy of fresh-cut flowers, there are nuanced approaches to flower cultivation and there may be better ways to cultivate flowers on our damaged landscape. This requires contemplation of the relationality between growers and their flowers, and between humans and their plants. A tenet of plant ethnographies holds that vegetative life forms are sentient, intelligent, communicative, agential and social beings instead of merely ‘species-as-décor’ (Hartigan 2019). Plants can be medicine, if we consider how alkaloids contained in most bioactive plants have physiological effects on humans through sensory experience (Shepard 2004; Faudree 2015; Daly and Shepard 2019). Plants can also be teachers: the spirits of plants presenting themselves during ecstatic trance have taught shamans how to diagnose illness, perform rituals and apply plants to restore the spirits of patients (Luna 1984, Shepard 2018). Plants can be persons, which is just as much an ontological assertion as it is a political one. Matthew Hall (2010) argues that the exclusion of plants from moral consideration entails the human-centric value hierarchy that plants are life forms fundamentally inferior to humans and therefore to animals.

In this article, I argue that the best way of cultivating fresh-cut flowers is to become their kin. And only by becoming kin can the best roses in Yunnan be grown in the Anthropocene epoch. That is why, against all the odds, small-scale growers like Panjie’s family grow better roses than large companies do. Operating a profitable flower business does not necessarily mean nurturing high-quality flowers. The wage labour hired by large companies to operate the automatic cultivation system or to pick flowers does not treat flowers as being more than commodities, any more than their capitalist employers do. By contrast, small-scale growers like Panjie treat flowers as kin. Panjie’s analogy of flower growing as being akin to childrearing re-emerged throughout many of our encounters and conversations. When reacting to my curiosity about flower cultivation, Panjie often compared the growth of flowers in the field to that of a child. Among her poetic insights were numerous statements such as: ‘Fertilisers need to be timely and in the right amount. Otherwise, malnutrition would turn the buds into deadheads, like the character we learned from a textbook, Radish Head (xiao luobotou, 小萝卜头)’ or; ‘Sometimes I feel that I attend to my flowers better than to my son’.
Panjie is a confident rose grower but an anxious mother. Her care of the roses is expressed through her embodied feelings of perception towards their miscellaneous needs. When Panjie works in the greenhouse, she pays attention to the soil, the plants, the petals, the air, the pests and so on. The path next to the rose plants needs to stay dry in winter but wet in summer. In winter, cold humidity would make the leaves wither. In summer, a humid environment would help plants to absorb water and micronutrients. Red mites spread quickly, turn green leaves yellow and imperil the whole plant. To the naked eye, the eggs of this pest resemble the tiny dots left by a pen nib. But to an experienced eye, these dots signal danger. As soon as Panjie notices the red mites’ almost invisible eggs attached to the leaves (Figure 2), she needs to take action immediately. A suffocating afternoon requires attention, too. If Panjie senses that the air is too hot in the greenhouse, she rolls up the edges of the plastic cover to allow a cool breeze to flow through. Otherwise, her flowers would be asphyxiated. Such an embodied mode of care can be likened to what Thomas Csordas describes as ‘a somatic mode of attention’ (1993: 146), whereby a bodily sensation is attuned to the intersubjective milieu. Csordas (1993) illustrates how an expectant father would experience bodily sensations attuned to his pregnant wife. To extend the application of Csordas’s argument to a multispecies world, the intersubjective attention paid to the world of flowers further mediates Panjie’s care for her son.

I had hesitated to acknowledge that kinship with flowers could be more than a metaphor, until I met Panjie’s biological son who is at a boarding school and only returns home at weekends. He is at middle school at the county seat where Panjie’s family rents land in a nearby village to grow roses. Panjie told me that she often feels that her son is growing up too quickly. She has not spent as much time with him as she has with her flower crops. I was his English tutor and this left me with the impression that he is a polite, quiet boy. I had several conversations with Panjie about her son’s exam reports, which were always below the class average. Schoolteachers demanded that Panjie come to talk about her son’s poor school performance, which ended up with Panjie further blaming her son for his failure to study. Sometimes Panjie would sit beside her son when he was doing homework, but she was not helpful in solving math problems or pronouncing English vocabulary. Lige worried that their son might never make it to college. Somewhat later, their son began to learn taekwondo at weekends, not only as a hobby but also in view of making it a potential occupation should he keep falling behind at school.

Panjie’s family’s livelihood, including the high fees for the boarding school and other possible attempts to develop her son’s potential, depends on the economic value of her rose crops. A timely harvest would provide Panjie’s family with the greatest benefits. Due to the lack of advanced greenhouse facilities, smallholders like Panjie rely on their embodied feelings of perception to attend to their flower crops. By attuning to her rose crops, Panjie can sense the most-overlooked signs indicating plant diseases and intervene promptly. Embodied feelings of perception are how cross-species love is initiated and then practised through what John Hartigan (2017) terms ‘care of the species’. In Spanish botanical gardens, care of the species manifests itself in the care of knowledgeable taxonomists in identifying plant species, in the selective destruction of plants by botanists with the aim of reserving only a limited number of plants for a garden exhibition, and the fetishisation of plant lovers to stock, acquire and rescue plant seeds (Hartigan 2017). Care, Hartigan argues, aligns or diverges ‘a form of
attention (interests) and a set of practices' (2017: 217). Consequently, care risks devouring both the carer and the cared-for, especially when it comes to interspecies relationalities where the object of care cannot answer back using our familiar linguistic tools (De La Bellacasa 2012). To figure out how to avoid culturally appropriating non-human others, María Puig de la Bellacasa advocates looking at care beyond mere empathy, 'as a practical everyday commitment' (209). Donna Haraway instantiates ‘the praxis of care’ by drawing from her kingdom of living creatures: ‘pigeons transform men into talented pigeon fanciers and by which the fanciers transform the pigeons into reliable racing pigeons’ (2016: 25). Therefore, care is oriented towards cross-species co-becoming.

Taking good care of flower crops requires that Panjie become their kin. The efforts she puts into flower cultivation are no less than those to nurture a child. Both are serious, irreducible responsibilities for Panjie. The care and attentiveness that a grower invests in her flower crops and that a mother devotes to her son are embodied efforts. Panjie often checks on her roses by going into the greenhouse, which is comparable to how she supervises her son’s homework by sitting beside him. When Panjie feels the coldness in the greenhouse, she knows it is time to heat it. If she feels breathless in the greenhouse, she knows that her roses need air too. Yet when she has to face the difficulties in her son’s schoolwork, she finds herself lacking the resources. In fact, as rose-growing parents, Panjie and Lige are better at catering for the needs of their roses than at helping their son with his schoolwork. Roses are cash crops for Panjie’s family: the better she cultivates them, the more economic value they can bring in for her family. Greater economic capital allows the family to provide fully for their son and to consider the possibility of additional schooling, which requires a large sum of money. With more money in hand, Panjie and Lige can also meet the cultural expectations of providing housing for their son’s future wife and offspring and they can fulfil the hope that the next generation will no longer be farmers – a socially disadvantaged occupation in contemporary China. Cashing in on the rose business enables Panjie to care for her son’s needs. Compared with Panjie’s keen attentiveness to flower crops, the care of her son is more implicit, less expressive and mediated through the care of her rose kin. Plant kin, as Theresa Miller (2019) argues in her ethnography of how the indigenous Canela community in Brazil cares and loves its growing crops as if they were human children, promote multispecies survival and well-being.
In a world of uncertainties brought on by anthropogenic forces, roses are one of few species representing a stable, worldwide and seemingly human-centric value: love. Yet the romanticism symbolised by a bouquet of red roses on Valentine’s Day tells only one side of the cross-species love story. Other aspects of cross-species love include the love for beautiful beings which sets in motion the commodity chain of flowers, the mother’s love for her son, growers’ attentiveness to the rose crops and the multispecies relationality extended to me, the ethnographer, and to many other flower senders and flower receivers.

The flower commodity chain aspires to timeliness. Lacking advanced agricultural equipment, small-scale flower growers in Yunnan face difficulties in controlling flowering times and are vulnerable to the unpredictability of natural disasters. To nurture high-quality flowers and to make them mature at the right time of the year, growers need to ‘know’ their flower crops intimately. Large-scale growers know their flower crops by checking the indications on their automated machines, whereas small-scale growers know them through embodied feelings of perception – a way of knowing that is attuned, accumulated and affectionate.

In order to analyse how indigenous ways of knowing inform the growers’ attentiveness to rose crops, we need to take a detour to Deborah Bird Rose’s (2007) encounter with an aboriginal woman named Jessie in Australia’s Northern Territory. ‘Jessie knew’, Bird Rose (90) states: Jessie knew when the march flies bit us, the crocs were laying their...
eggs; Jessie knew how to call out to her ancestors, asking for their blessings for hunting; Jessie knew by being present in her country, and by paying 'intersubjective attention in a sentient world' (91). By noticing how Jessie knew, Bird Rose knew too. Bird Rose knew by way of 'embodied responsiveness' (94). Many years after Jessie's death, when Bird Rose visited Victoria River where she had spent years fishing with Jessie and listening to Jessie, Bird Rose remembered to call out to Jessie, asking for Jessie’s blessings just as Jessie had done with her own ancestors. To argue by analogy, flower grower like Panjie know. Panjie knows that when the flowers' leaves show signs of wilting, the plants need ‘medication’. Panjie knows that her family’s well-being depends on her flower kin and vice versa. Panjie knows through her iterative, embodied and intersubjective experience and practices of nurturing flowers. In return, roses reciprocate by presenting a full bloom on Valentine’s Day, responding to the attentiveness they have received and displaying qualities of salience in the social and cultural world of humans.

The way flowers reciprocate her care interweaves Panjie’s love for her son, which further engages me from an ethnographer’s perspective. In retrospect, during our interactions, my purpose had been clearly specified from the outset: I wanted to know everything that Panjie knows about the flower world. However, while addressing my numerous inquiries, Panjie always found a way to bring the discussion back to her son. Juxtaposing childrearing and rose nurturing not only reveals the two major preoccupations of a rose-growing household in Yunnan, but also demonstrates the seriousness of both efforts, dissolving the boundaries between humans and non-humans and consolidating the pursuit of economic value and affection.

Julie Archambault’s groundbreaking analysis of plant-loving men in Mozambique – where young unemployed men devote the same sort of time, attention and affection to their ornamental plants that lovers would command, in order to counteract the ‘mainstream ideals of masculinity that cast men as providers’ (2016: 251) – offers a complement to my own lines of inquiry. The assertion that ‘my plants are my lovers’ (245) is more than figurative speech for Mozambican gardeners. Their human-plant encounters are both affective and ‘serious’. Archambault argues that their love for plants is as literal as the love for women, who also require time, attention, affection and even money, which is a scarce resource against the background of postcolonial, post-war, sub-Saharan Africa. Building on Archambault’s work on the seriousness of love beyond human relations, the stories of flower cultivation in Yunnan that feature cross-species love exceed metaphor and also reach out to a level of seriousness.

The idea of ‘beyond metaphor’ is inspired by Eduardo Kohn (2013) who defines it as perspectivism. For instrumental purposes, the Runa people of the Amazonian forests adopt the perspectives of jaguars, catfish or parakeets: a ‘fish-hunter’ used to trick catfish into entering his trap by painting his hands dark purple; a Runa man calls an approaching jaguar his son-in-law to entice and trap him. Kohn argues that the ‘attentiveness to the points of view of other organisms’ (96) reveals the veracity of the more-than-human ontological claim. Under the ethos of delineating the relationality between diverse forms of human and non-human life, multispecies studies advocate an ontology of ‘ecological animism’ (Descola 2013, van Dooren and Bird Rose 2016). The term animism was used by Edward Tylor to indicate that ‘primitive people imagined that everything had within it a soul’ (Bird Rose 2013, 96). Thus, in early anthropological work, it had a negative connotation. Yet the reinstitution of animism as cosmologies in
multispecies studies acknowledges the sentience and agency of the earth by ‘rethinking
the ontological exceptionality of the human’ (Bird Rose et al 2012: 2, see also Swancutt
and Mazard 2018 and Da Col 2017). This comprises another aspect of what I mean by
beyond metaphors.

In his discussion of the soul-embedded mountain landscapes of Tibet, Dan Smyer Yü
(2015) delineates the Tibetan plateau as being fused with ecological value which
interrelates various modes of being. Instead of ‘a distant gaze on pristine, untouched
nature’ (70), Smyer Yü argues for a reciprocal relationship between place and people.
While I hesitate to claim that fresh-cut flowers in Yunnan are soul-embedded
commodities, there is certainly a reciprocal relationship between rose-grower Panjie,
her rose crops, her son and me. In nurturing roses as if they were her son, Panjie
creates kinship with them. The roses she cared for are sentient beings of the earth,
which reciprocate Panjie’s love by providing for her biological kin, her son. And I, an
ethnographer, a friend, an intruder, impressed by Panjie’s warm reception, reciprocate
by being responsive whenever she feels the need to talk about her son’s performance at
school. Cross-species love further extends to me and, I believe, to many others as well.

Panjie’s love for her rose crops extends beyond their mere economic value: that is why
she grows better roses than growers who only view them as commodities for exchange.
Rose nurturing is the embodiment of her love for her son. Panjie grows roses as a
practice of love, as opposed to merely thinking of roses as a representation of romantic
love (from a consumer’s perspective). Romantic love, which is culturally embedded in
Valentine’s Day roses, is produced by the mother’s love for her son and the grower’s
love for her crops. Love becomes an embodied practice, which is transposable to other
species, other humans and other relationalities. I regard ‘better roses’ as those
nurtured by embodied responsiveness, grown from affective attentiveness and cared
for out of cross-species love. ‘Better roses’ are not necessarily highly priced in the
marketplace. I received numerous flowers as gifts during my fieldwork. Sometimes the
flower vendors gave me all their leftover flowers after a day’s business. I was extremely
pleased to receive those flowers, which otherwise would have been discarded. After
being sorted, the flowers brightened my room and represented a mark of our
friendship. ‘Rose presented, smell lingers on’ (songren meigui, shouyou yuxiang, 送人玫
瑰, 手有余香) is a saying Panjie often quoted when offering roses to me as gifts on
many of our encounters. The gifts of roses I received from Panjie and many other
interlocutors bear the sentience of the plant-life which is animated, responsive and
interactive.

Nonetheless, cross-species love is not always positive, reciprocal and productive. It is
more than a metaphor also to the extent that flowers ‘take revenge for’ our negligence.
I recall one morning in particular during the florist training course I attended in the
course of my fieldwork at the Dounan flower market: I was the first to arrive, I opened
the classroom door, walked in and was immediately overwhelmed by a putrid smell.
The teaching assistant who came in after me identified the stench as coming from the
flower materials left unattended over the previous few days. She instructed us trainees
to sort the salvageable flower materials, clean the vases thoroughly and put the flowers
in clean water. Water is the only source of energy for fresh-cut flowers once they have
been picked. But bacteria and fungi easily breed in wet, cold and cramped
environments, such as a vase, causing the stems to decompose and thus to give off a
repulsive smell. Any flower expert would change the water in the vase every day to
ensure that the flowers have a clean source of energy. Flowers require constant care to maintain their beauty.

On another occasion, the bad smell occasioned a dispute between a flower wholesaler at Dounan flower market and a flower retailer from a city in eastern China. The flower wholesaler, Xiao Wang, was my interlocutor-friend and was in his early twenties. After having done fieldwork with him, I would characterise him as a little careless. One day, a sulky Xiao Wang told me that his customer had scolded him for selling her stinky flowers. The customer said the minute she unpacked the carton, she felt sick from the smell. Later, Xiao Wang alluded to the cause of the stinky smell, suggesting that it was due to water droplets attached to leaves and stems. Fresh-cut flowers transported from Yunnan to other places in China are packed into large cartons weighing a considerable amount. The flowers are packed tightly to avoid collision and friction, and the cartons are sealed. Space within them is limited and, if the flowers suffocate in a moist environment for hours or days during transportation, they ferment and start to stink. Xiao Wang said that he could not be bothered, however, to shake off the droplets prior to packing them.

Flowers are sentient beings that reciprocate attentiveness and take revenge for negligence. In fact, not only flowers but the whole world is suffused with ‘affective consciousness’ (Smyer Yu 2020: 273), through which all animated life-forms are entwined. This entwinement, I argue, orients us towards an embodied co-becoming of one and another. The life forms of fresh-cut flowers are entwined with various elements of the commodity chain. Not only do flower growers bear the responsibility of maintaining the beauty of flowers but so do agricultural specialists, wholesalers, retailers, florists and even consumers. The appreciation of flowers entails taking care of them. And taking good care of flowers requires becoming kin with them, which is also the process of perceiving the other species’ needs and responding accordingly. Likewise, Panjie’s flower crops become timely commodities that reciprocate the care they received from their nurturers by providing economic value. Furthermore, with her flower crops, Panjie becomes a seasoned flower grower, an attentive mother to her son and an articulate protagonist in my ethnography. As the flow of flowers moves from the growing fields to the vase on the table, co-becoming generates a world infused with beautiful beings.

Conclusion

Flowers as vegetative life forms are primordially natural beings. However, fresh-cut flowers are peculiar in that their very existence is impossible with no artificial breeding or cultivation. Fresh-cut flowers transgress the dichotomy of nature and culture. Nurturing fresh-cut flowers epitomises the human effort to pursue human-centred values and customs, such as the exchange of roses on Valentine’s Day. Yet this also demands an entanglement of various beings and the co-becoming of nature and culture. It is widely accepted in a human-centric world that roses represent romantic love. Rather than question the symbolic value of roses, my essay has sought to reveal multispecies world-making and cross-species co-becoming, which mutually constitute this representation. A gift of a bouquet of roses on Valentine’s Day is a congealment of love beyond humans which, as my ethnography shows, is transposed from the rose-growing mother’s love of her son to her rose crops. In this process, rose growers
become kin with their rose crops by devoting a certain time, attention and affection to the roses they nurture, which is comparable to raising a child.

42 Appreciating fresh-cut flowers is to attend to their beauty. Attending to flowers as kin is not a discursive metaphor for the sake of romanticising an apparently unequal relationship but a serious, materialistic and considerate effort to ‘become with’ flowers. Fresh-cut flowers are the embodiment of centuries-long negotiations between human nurturers and the natural environment, between whom there is a dynamic of mutual solicitation, accommodation and co-becoming. Yunnan flowers delineate cross-species love where the domestication of fresh-cut flowers is enabled by the embodied feelings of perception which can only be accumulated by the local knowledge acquired through daily interactions between human beings and their floral counterparts.

43 Yunnan Province serves as one of the most abundant natural and ethnographic resources in southwest China. Besides being home to the largest variety of plants as well as to the most diverse ethnic minorities in China, it hosts the largest fresh-cut flower market in Asia. However, in terms of political and economic status, Yunnan ranks lowest among Chinese provinces. A representative of a large Dutch-invested flower cultivation company – to illustrate how outstanding their flowers are – said to me that I would never find flowers of their brand on the consumer market in Yunnan because their flowers are high-end and thus too expensive for the Yunnanese. Their flowers are produced on Yunnan land, branded with a Dutch name and sold in modern Chinese metropolises. In this sense, one can imagine that their cultivation entails both the exploitation of labour and environmental resources in Yunnan.

44 While capitalist methods of cultivation damage the land, there is nevertheless an alternative approach which, due to historical contingencies, is how a large percentage of Yunnan flowers are cultivated: on a small scale. Small-scale growers are petty capitalists but also flower lovers. This essay throws light on small-scale growers who love flower crops beyond their mere economic value. This cross-species love inheres in the serious effort of attending to flowers’ miscellaneous needs throughout their life cycle which, in Panjie’s case and in many others, is comparable to childrearing. Other than the transposition of the mother’s love to her son, cross-species love interweaves the aesthetics of perishability, the symbolic meaning of roses and the reciprocal relationships among Panjie, her son, her rose crops and me—the ethnographer.

45 As nuanced as it seems, the fact that small-scale growers in Yunnan nurture flowers as their kin is tremendously significant. The statement – flowers are kin – is not only a metaphor if we understand it outside the realm of China’s political economy and re-situate it in the context of the symbiotic indigeneity of the Himalayas. As the new frontier of Himalayan studies – whose historical geographical focus has been Nepal, Tibet and India (Smyer Yü and Michaud 2017) – Yunnan tells the stories of its flower cultivation within the context of its own indigeneity and anticipates further conversations with other affective beings in the transboundary eco-geological terrains of the Himalayas. Instead of serving merely as a place with exploitable resources, Yunnan becomes the subject with its stories of flower cultivation and stories co-become a verb, storying the cross-species love beyond metaphors.

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NOTES

1. See a general introduction to how several varieties of flowers in China are nurtured and how Yunnan occupies a crucial position in storing China’s plant species because of its geography and weather conditions, from “*Flower Blossoms in China* (huakai zhongguo 花开中国)”, documentary produced by Ying Liu for CCTV. See: https://tv.cctv.com/2020/04/27/VIDAXq3nIOGTqpgZTqoG3Y1I200427.shtml.

2. The interview was conducted on 8 October 2019.

3. ‘The World’s Biggest Flower Market’, documentary produced by Ruairí Fallon for the BBC. See: https://www.bbc.co.uk/programmes/b07czwfd

4. I use the term ‘indigeneity’ by comparison with discussions about ‘indigenous people’ in, for example, de Maaker (2018) and ‘indigenous lifeways’ in Grim (2020).

5. The distance from central Kunming to the Dounan flower market is around twenty-five kilometres.

6. https://www.researchgate.net/figure/Map-of-Yunnan-province-and-neighbouring-countries-Map-modified-following-terms-and_fig1_315370414/download, accessed 28 May 2022.

7. ‘520’ pronounced in Chinese is *wu er ling*, which is a somewhat homophonous with *wo ai ni* (I love you) and is thus considered a day to express love. The Qixi Festival is also called Chinese Valentine’s Day and derives from the romantic legend about the cowherd and the weaver girl who get together once a year on the Magpie Bridge across the milky way on the seventh day of the seventh month of the Chinese Lunar calendar.

8. The interview was conducted on 14 September 2019.

9. The interview was conducted on 22 August 2020.

10. Radish Head (*xiao luobotou* 小萝卜头) is a revolutionary martyr who appeared in Chinese patriotic education. He was imprisoned with his mother at the age of eight months. Growing up in the harsh environment of incarceration in revolutionary China, Radish Head acquired this nickname because he suffered from malnutrition, making him malformed with a big head and skinny arms and legs.
ABSTRACTS

Fresh-cut flowers from the Himalayan region of Yunnan are not only ornamental plants but 'good to become with'. This article grapples with the nuances of how small-scale growers nurture flowers through affective attentiveness, embodied responsiveness and cross-species love. The protagonist in this ethnography, Panjie, likens growing roses to raising her son – a comparison which, I argue, extends beyond the metaphorical dimension. Juxtaposing childrearing with nurturing roses reveals the seriousness of both efforts, blurring the boundaries between humans and non-humans, and synthesising the pursuit of economic value and affection. In Yunnan, small-scale growers like Panjie develop a literal process of kinship with flora to better cultivate flowers from a landscape that has been damaged by anthropogenic forces. Cross-species love is practised through the embodied feelings of perception towards the miscellaneous needs of flowers. In turn, flowers reciprocate the love by blooming punctually, thereby bringing economic benefits to their nurturers, which further provides the means for other forms of caretaking. Romantic love, the symbolic meaning that a bouquet of red roses conveys on Valentine's Day, is thus a congealment of love beyond humans, which is transposed from the rose-growing mother’s maternal love to her rose crops.

Les fleurs fraîchement coupées de la région himalayenne du Yunnan ne sont pas seulement des plantes ornementales, elles sont aussi 'good to become with'. Cet article se penche sur les différentes façons dont les petits producteurs soignent leurs fleurs à travers l'attention attentive, la réactivité incarnée et l'amour inter-espèces. La protagoniste de cette ethnographie, Panjie, compare la culture des roses à l'éducation de son fils - une comparaison qui, selon moi, va au-delà de la dimension métaphorique. La juxtaposition de l'éducation des enfants et de l'entretien des roses révèle le sérieux des deux efforts, en brouillant les frontières entre les humains et les non-humains, et en synthétisant la recherche de la valeur économique et celle de l'affection. Au Yunnan, les petits producteurs comme Panjie élaborent littéralement une parenté avec la flore pour mieux cultiver les fleurs d'un paysage qui a été endommagé par les forces anthropiques. L'amour entre espèces est réalisé à travers les sentiments incarnés de la perception des divers besoins des fleurs. En retour, les fleurs rendent l'amour en fleurissant ponctuellement, ce qui apporte des avantages économiques à ceux qui les entretiennent, permettant d'autres formes de soins. L'amour romantique, la signification symbolique qu'un bouquet de roses rouges véhicule le jour de la Saint-Valentin, est donc un condensé d'amour au-delà des humains, qui est transposé de l'amour maternel de la mère cultivatrice de roses à ses roses cultivées.

INDEX

Keywords: Yunnan flowers, nurturing roses, co-becoming, cross-species love
Mots-clés: fleurs du Yunnan, roses nourricières, co-becoming, amour inter-espèces

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