

Chapter four

Taskscapes of vine work



Fig 4.1. Vineyard team at work in a spring vineyard at Valli Unite.

The branches, although dead for months now, are still holding on to the wires with their thin but incredibly strong tendrils. The vine is further attached to the wires by plastic bands, and the branches are plaited into the wires. Pulling them off is not an easy job. The branches are hard and springy, when you pull at them sharply you run the risk of having them whip back, suddenly free, straight into your face. And that hurts! The branches are knobbly, tangled, long things, one completely different from another. Just when you think you've got it down, think again – one of the tiny little off-branches jerks you suddenly back, or one of the tendrils you missed nearly pulls the branch back out of your hand. Working without gloves would be a very painful affair... After just a few minutes my back and arms start complaining, and I'm sweating in spite of the cold.

(based on field diary 30/01/09)

(Fig. 4.2.1 and 4.2.2 to the right: Lucille pulling down pruned branches)



4.1 Introduction

Wine is an agricultural product. It is made from the fruit of vines, which grow in the soil. This is a seemingly obvious statement, and one reiterated on every wine label. The connection between wine and land is epitomised by the term *terroir* which both expresses and obscures the agricultural origins of wine, rolling ecosystems, soils, vines and human labourers into one. The idea of *terroir* works as a fetish obscuring the laborious, hybrid, embodied landscapes of agricultural work in the vineyards, a work which disciplines plant and human bodies alike. Long-term relationships between wine-making humans and grape-producing vineyards result in the characteristic landscapes of rolling, vineyard-covered hills of Piedmont, Tuscany or Veneto. The daily labour of creating these landscapes, however, remains invisible both to the tourist and the drinker. Cast as either an agri-industrial activity, or a romanticised agricultural idyll, the embodied practice of grape-growing is reified into calculation or myth.

In this chapter I lay the ground for the subsequent exploration of the relational materialities of organic wine production by focusing on work practices in the vineyards. In this account I move beyond the exploration of agricultural nature in rural research as either 'external, inorganic medium, acted upon and manipulated by human artifice' (Goodman 1999:20) or as symbolic and/or cultural capital accumulated by farmers (see for example Grey 1998, Hunt 2010, Yarwood and Evans 2001). In this chapter, I instead attempt to re-write the spaces of grape-growing work as material and goal-oriented encounters between human and plant bodies in which market interests, ethics of production and embodied skills meet with and are produced in the encounters with vital materialities of grape-producing vines. I begin to establish the

vineyards and wineries as spaces of work, populated by working mindbodies and vital materialities of 'things'. In thinking about landscapes of work I employ Ingold's (2000) dwelling perspective. This allows me to bring out the temporal and processual characteristics of vine work which are easily silenced in retrospective accounts of 'vineyard management' as more or less straightforward exercises of human intentions. I utilise Ingold's notion of taskscapes as a way of seeing the materiality of landscape as temporally becoming. Taskscapes bring together tasks, that is 'practical operation[s], carried out by a skilled agent in an environment, as part of his or her normal business of life' (195), and the environment in which these tasks unfold. This unfolding always takes place in relation to the already materialised past practices. Taskscapes, therefore, are landscapes of action, landscapes which are both formed through and expressed in the continual acts of human and non-human co-becoming. Taskscapes are landscapes known through doing, not just through looking, through movement, not just contemplation. In this chapter, focusing on individual practices of vine pruning, and on the becoming of vineyard 'taskscapes' (Ingold 2000) I explore the indeterminacy and uncertainty inherent in winegrowing, and explore the ways this uncertainty is managed by vineyard workers.

Ethnographically, this chapter introduces vine work which is a constant backdrop to all other winery activities. Grape-producing vines require attention throughout the year, and the practices of pruning, spraying, soil maintenance and grape harvesting are dictated by plant and weather-oriented temporalities of growth and dormancy. Grape production is an economic process, and the long- and short-term interventions into bodies of plants are motivated by particular concerns relating to productivity and grape quality. However, the practices of vine pruning are not a simple exercise of market-motivated human agency upon passive natures. An attention to the performance of vine pruning allows me to explore the landscape of tensions between human intentionality, and the becoming of plants. I argue that the performance of vineyard practice requires both affect-able mindbodies and affording materialities, and that it is characterised by uncertainty and indeterminacy of outcomes.

On the level of theory, I focus on the acquisition and performance of skilled practice. I draw on my own experiences as a novice vine worker to explore how working with vines is learnt as a hands-on experience. I then problematise the idea of vineyard work as an execution of abstract plans on the canvas of passive nature. Instead I uncover the uncertainties and indeterminacies of skilled action in the context of grape production. Working with Ingold's (2011) 'storytelling' metaphor for 'dwelt knowledge' acquisition, Pickering's (1998, 2005) 'tuning' metaphor and Adam's (1998) insights on the temporality of nature, I explore indeterminacy and uncertainty in the performance of vineyard work practices. My focus on embodied realities of this work upsets the modern (Latour 1993) separation of active humans and passive things. What emerges instead is a space of intra-activity (Barad 2007) in which bodies of vines and vineyards are 'substance[s] in [their] intra-active becoming' (828), not simply products of or obstacles to human intentionality. From passive undifferentiated spaces of nature vineyards are re-cast as 'taskscapes' (Ingold 2000), that is a material, temporally emergent records of human and non-human 'unfoldings'. The aim of this chapter, then, is to begin unpacking what applying the ontological shift from the world of humans and things to the world of agency can mean for ethnographic practice, and to start teasing out the consequences of embracing materiality as significant and consequential for the understanding of skilled and goal-oriented action of agri-

food production.

4.1.1 Intentionality and temporal emergence in vineyard work practices

Typically the unfolding of goal-oriented action is imagined as an application of a pre-existing intention to the material surface of the world. The success of the practice is then measured by comparing the initial 'design' with the resulting 'output'. This position, and its implied separation of the mind which studies and the world which is studied, was thoroughly critiqued by Ingold (2000), with whom I share the reservation towards approaches which claim that 'the only way to understand our creative involvement in the world is by taking ourselves out of it' (173). In order to get over the preoccupation with form over process in the performance of practices Ingold introduced the 'dwelling perspective', that is 'a perspective which situates the practitioner, right from the start, in the context of active engagement with the constituents of his or her surroundings' (5). In the application of the 'dwelling perspective' to the performance of skill, intentionality and functionality are seen not as 'pre-existing properties of the user and the used, but rather immanent in the activity itself, in the gestural synergy of human being, tool and raw material' (352).

Informed by the work of Ingold and by the experiences of working in vineyards, in this chapter I demonstrate that uncertainty and indeterminacy are not 'aberrant moments' in the otherwise fluent translation of will into matter, but instead that they are inherent elements of working with vines. The 'dwelling perspective' allows me to overcome the idea that practices are simple applications of pre-existing designs to passive materials. In understanding how vineyard workers deal with the indeterminacy of their actions, I further draw on Pickering (1995, 2005) and his study of scientific practice. Upsetting the image of scientists as 'disembodied brains' acting on a passive world, Pickering argued for an understanding of goals as *temporally emergent* from the field of practice (see also Barad 2007). In the context of scientific experimentation, he argued, '[t]he contours of material agency are never decisively known in advance' (1995: 14). In the process of experimentation human intentionality and material agency are thrown together, and it is impossible to predict exactly what will emerge on the other end of the 'mangle'. Instead of rational human beings acting on a knowable world, Pickering offers a vision which, he admits, is 'offensive to some deeply ingrained patterns of thought' (24), upsetting the implicit supremacy of mind over matter.¹

I align myself with both these authors in my understanding of skilled practice as 'a surface of tensions' between the practitioner and the world, and in understanding the indeterminacy of action in vineyard practices. I argue that vine pruning cannot be understood as an enforcement of a pre-existing abstract idea on a mute material. Instead, I suggest that vine pruning practice emerges from the interaction of sensitive mindbodies with the material of the vines. As a result competent performance of vine pruning practice requires both a pruning mindbody capable of responding to the affordances of the world of practice, and a world of practice which has enough 'nonhuman charisma' (Lorimer 2007) to invite engagement. The context-specificity and material sensitivity of this practice means that success is not measured with reference to an

¹ He observes, after the fact scientists will offer persuasive accounts of why things happened as they did, but in his view real-time observation of how things unfold will uncover these post-factum rationalisations as just one more element for analysis, not descriptions of actual events.

‘ideal scenario’ (as there is no ‘ideal scenario’ to aim at), but in terms of more ‘qualitative’ and ‘subjective’ criteria such as vine health and grape quality.

Furthermore, I argue that any act of vine pruning cannot be understood just as an individual isolated encounter between worker and vine. The interaction always has a temporal element, as each intervention is rooted in the history and the future of particular plants, particular workers, and particular vineyards. Proficient practitioners are those who are capable of situating their practice in the temporal-material unfolding of vines so that ‘every movement, like every line in a story, grows rhythmically out of the one before and lays the groundwork for the next’ (Ingold 2000: 347). Importantly, vine work does not just involve individual vines, but entire vineyards. In the second part of this chapter I move from considerations of individual vine-pruner encounters to temporally and spatially larger issues of vineyard management. I argue that the principle of temporal emergence which applies on the level of individual vines is applicable to the large scale phenomena of vineyard management as well. As in the case of individual vines, so in the context of vineyards it is difficult to speak of vineyard workers enforcing their intentionality on a mute and passive nature. Instead they engage in experimental ‘tuning’ (Pickering 1995) in sometimes successful and sometimes unsuccessful attempts to capture the productive agency of the vines. The complexity of vineyard ecosystems makes it impossible to establish indisputable cause-effect relationships. As a result success is measured not by a comparison between a pre-existing ‘idea’ and the final ‘result’, but by staying in a productive relationship with the vines without necessarily working towards complete control.

I begin this chapter with a brief presentation of human-vine co-evolutions to tease out the inherent hybridity of human-vine relations. Following this, I draw on my own experiences as a novice vineyard worker to analyse practices of vine pruning as embodied skills. I engage with literature within the practice theory canon (Reckwitz 2002a) to valorise the materiality of vines within practices of pruning, and to argue that ‘within practices not only bodies but also artefacts are sites of understanding’ (Reckwitz 2002a : 212).² I demonstrate that learning the practices of vine pruning requires not only participation and repetition, but also the capacity to be affected both by others and, crucially, by the materials worked with. Trying to move beyond the reification of both bodies and materialities in practice theory accounts of skill, I explore the importance of particular bodies and particular vines in pruning work. This thick description allows me to focus on the affective registers of vine work, understood as the temporally and individually variable capacity of working bodies to be affected by the world. In exploring instances of ‘practice breakdown’ such as fatigue and failure I challenge the assumed ‘affectability’ of the ‘universal human body’ which continues to be the generic referent for many theories of practice narratives.

In the second part of this chapter, I further engage with the instances of failure and uncertainty in vine work practices to illustrate the emergent becoming of grapes. I argue that in the context of grape growing open-ended causal possibilities rather than strict cause-effect relationships are used to rationalise unpredicted developments in the vineyards. In examining the taskscapes

² The word ‘artefact’ here denotes not the human ‘origins’ of material objects, but the impurity of all human-material relations, i.e. all ‘things’ are artefacts.

(Ingold 2000) of particular vineyards I explore the tense relationships between vine workers and vines, and demonstrate the temporal emergence of goals in vineyard work (Pickering 1995, 1998). I also stress the inherent uncertainty and indeterminacy of grape production, and argue that at Valli Unite grape production uncertainty is dealt with not through a tightening of control, but through a continual experimental ‘tuning’.

The fascination with the temporality of vine work is one of the key themes which pervade this chapter both as written and visual narrative – video stills of ‘before’ and ‘after’ are used to achieve a sense of dynamic action, photographs are used as illustrations to convey the complexity of material or scale of action, maps are used to illustrate the spatiality of the encounters, and videos can allow an ocular and auditory experience of being in vineyards. These visual tropes aid an investigation of the intimate relations between humans, vines and other non-human temporal agencies such as clay, weather and water, doing away with the idea of seamless, predictable, cyclical ‘natural’ time. Instead, we are granted an insight into the conflicted, stressful, tedious and surprising temporalities of vine-work. This engagement is underlain by ongoing and unavoidable uncertainty of outcomes.

4.1.2 Why Valli Unite?

Unusually in this thesis, in this chapter I present ethnographic data from one field site only. While the understanding of practices of vine work was aided by experiences in other sites where I participated in vineyard work (such as Erbaluna, where I helped with vine pruning, and at La Biancara, where I struggled alongside Angiolino and his sons to contain vineyard growth spurts), at Valli Unite my engagement with vines, vineyards and vineyard workers was the most continuous. The conceptual framework of this chapter was shaped by fieldwork and interviews at multiple sites. In the light of the length of ethnographic evidence necessary to convey the context-intensive and often non-verbal dimensions of vine work, I decided to draw on ethnographic data from one field site only.

Valli Unite was also a unique location within my fieldwork when it came to the care they bestowed upon their vineyards. Valli not only participate in the WWOOF programme (World Wide Opportunities on Organic Farms), but also aim to provide work to friends, acquaintances and other ‘outsiders’ who come their way (including nosy researchers). As a result it was easy to gain access to work sites, and to be accepted as an unskilled worker in need of training. At the same time, there is a core of long-standing vineyard workers at Valli: Dirk and Paulus have both worked the vineyards for the last twenty years, and Lucille has been working at Valli Unite since the late 90s. Then there is Ottavio who, while he does not work in the vineyards himself any more, is always available for advice, and makes the final decisions on vineyard management. To add to this complexity of practices, the vineyards of the coop spread far and wide, with big parcels of land such as Vignia Nuova displaying completely different characteristics, and supporting vines of a completely different age and type than for example Perigotti (see the map in Appendix B). As a result, at Valli I found a dedication to hands-on work in the vineyards combined with extreme heterogeneity of both vines and workers, from young to old, from experienced to novice, and from skilful to inept, which allowed me to build a comprehensive picture of vine pruning practice acquisition and performance.



Fig 4.3: A spring vine 'crying' sap.

4.2 Introduction to vines: vine as a historical and material hybrid

'Matter is always already an ongoing historicity.'
(Barad 2003: 821)

In this section I look at a vine as natureculture (Haraway 2007) and an essentially hybrid being (Latour 1993). With a vine being a plant rather than a machine or an industry, themes more common in ANT accounts, we could be tempted to lapse into considering vines as elements of 'nature', a lapse to be avoided in a performance-centred account. As Latour (1999) noted, we do not live in societies, but in collectives, which were built and are maintained through a joint effort of human and non-human actors. All non-humans, be they sulphur dioxide, vines or yeasts, have histories of sociability, and in this introductory section I trace the past and ongoing historicity of the human-vine collective. The point to be made here is that hybridity is the original state, and a state constantly reproduced. As there were no microbes before Pasteur, so there were no vines before humans; there is no time of pure vines and pure humans we could refer to. The notion of hybridity needs to be distanced from its roots in science and technology, as hybridity is not a scientific achievement, but a condition of being (Hird 2009). The hybridity does not derive from the 'unpure' mixing of the social and the cultural, but rather from the underlying hybridity of all bodies which exist only through relations, be it with humans or other non-humans (Lulka 2009). Dis-entangling the material-social time-narratives of the vine is like peeling an onion, with new layers of pre-existing hybrids all the way down, as deep as we care to look.

4.2.1 A (very) brief social history of the vine, and how phylloxera made modern viticulture

'It is not a question of nature... Natures mingle with one another and with "us" so thoroughly we cannot hope to separate them and discover clear, unique origins to their powers.'

(Latour 1988: 205-06)

It is impossible to determine a date at which humans and vines began their co-evolution; there is evidence of vine growing and wine consumption in the mountainous region between the Black Sea and the Caspian Sea from as early as 6000 BC (Unwin 1991). While present in many antique cultures of the Mediterranean region, wine only gained prominence as the main alcoholic drink in the cultures of the ancient Greeks and Romans (Unwin 1991). Thanks to its symbolic importance in Christianity, wine survived the dissolution of the Roman Empire, and continued to be cultivated throughout the Middle Ages. Increasing demand for wine from urban elites led to an expansion of vineyards located along main European rivers, which facilitated transport (Unwin 1991). Vine growing and winemaking technology evolved slowly to the rhythm of the waning and waxing European population (for a thorough history of European winemaking see Unwin 1991). The defining moment of European viticulture as we know it today was the attack on the vineyards by a hitherto unknown and disastrous disease in the mid-nineteenth century. The 'terrible vine blight' was

'in a sense, a revolution, but not the kind that men (...) understood, for it was egalitarian in natural rather than human terms. Ignoring all hierarchy, it destroyed the finest and the meanest of vines, the noble and the proletarian' (Loubère 1978: 154).

Between 1868 and 1900 2.5 million ha of vines were uprooted in France alone. The disease that nearly destroyed winemaking in Europe had its origins in a humble yard vineyard in Roquemaure in 1850s, where a certain Mr. Borty planted some American vines sent by a friend from New York (Campbell 2004). American vines had been transported to Europe before that, but it was only the speedy transit by steam boat, rather than the longer sail journeys, which allowed the bug to survive the journey and thrive in European soil (Loubère 1978). A botanist from Montpellier, Jules-Emile Planchon, travelled to Roquemaure in 1868 to investigate an outbreak of an unknown disease, and found the roots encrusted with yellow insects he called *phylloxera vastatrix*, 'the dry-leaf devastator'.

Years of scientific research and political struggle followed. Just as pasteurisation lays at the root of modern oenology, so the search for a phylloxera cure was the golden period of growth for scientific vine growing in France. The complexity of the insect's lifecycle, the laboratory origins of the cures, and the government subsidies necessary to finance the uprooting and re-planting of vineyards made the vine growers strongly dependent on the scientific community. Pesticides, vineyard flooding and other methods were tested. Grafting *vitis vinifera*, the European wine-grape bearing vine, on the rootstocks of the American vine, the arrival of which unleashed the demon in the first place, was one of the proposed solutions. After a decade-long struggle between the supporters of grafting and the 'chemists', that is growers who insisted on using pesticides to eradicate phylloxera, the grafting method prevailed. Various American vines

and American vine hybrids (American vine cross-breeds) were experimented with in viticultural research centres to find rootstocks which would thrive in difficult soils traditionally used for growing the European *vinis vinifera*. At the same time, similar research was being undertaken on the fruiting part of the vine, where flowering times and organoleptic characteristics of the grape were changed through cross-breeding.

The fight with the American insect was never won. Not only phylloxera, but other American-originating vine diseases such as powdery mildew have since become a constant threat to vine growers across Europe. The struggle is constantly re-materialised in the landscape of a modern vine nursery, where vines are grown, grafted and sold.

4.2.2 A visit to a vine nursery: Giuseppe Pinat, Perteole

(based on field diary 29/06/2009)

Giuseppe's nursery works within complex networks of laws and regulations which on the one hand are designed to protect the European vineyards from the re-occurrence of the terrible vine blight, and on the other serve the interests of the research centres responsible for the development of particular vine clones. At Giuseppe's nursery today there are three sorts of vineyards. The first section looks like an ordinary, although smallish vineyard. These vines are the legally recognised, original clones which Giuseppe propagates; that is, not only do the vines belong to a particular vine variety, but they are the plants considered to express most fully the best characteristics of that variety, plants which have been cloned rather than grown from seed.

The vines growing here were originally purchased as saplings from the research institutes responsible for their development; for some of them Giuseppe has to pay a royalty, while others are free. When the saplings arrive, they carry the white label denoting their status as *materiale base* – basic vine propagating material. Should one of these vines become diseased, or simply reach an end of its productive life, a new clone will have to be purchased from the research institute – legally, the *vivaista* is not allowed to clone the clones for his own use.³ These vines will be harvested for cloning every year, each bud producing one cane which will become an independent vine.

A parallel process goes on in the second part of the nursery. There, rows of American vines are grown and harvested for canes to provide rootstocks for the clones-of-clones. The rootstocks have similarly been developed by research institutes, and, like the vine clones, can only be legally propagated by certified *vivai*. Each autumn the harvested canes of the European and American vines are grafted, that is connected by hand by skilled workers. The canes are then inserted into the water to grow roots, and finally planted in sterilised soil. If the saplings survive one season, they will carry a blue label signifying their certified status. Wherever they travel, vines are accompanied by certifications and documentations to ensure their traceability in case of disease breakout or in case of suspected infringement of intellectual property rights.

³ Vivaista: Plant nursery owner/worker.



Fig 4.4: 'Original propagating material' saplings. Fig 4.5: American vines.



Fig 4.6: Vine and rootstock pre-grafting. Fig 4.7: Grafted vine saplings.

Countless vine-rootstock variations exist, with both vines and rootstocks being constantly improved to find more resistant, better performing varieties with rootstocks better adapted to particular soils and water conditions. At the same time, the American-European vine hybrid arrangement is always undermined by the vines themselves. At times in the vineyards 'wild vines' can be found – these are the vines that developed either from left-over roots after a plant died and was ripped out, or sprout under the ground and emerge to the surface in another part of the vineyard. Occasionally a novice vineyard worker fails to tell them apart from *vitis vinifera* and a handsomely pruned and tied American vine becomes part of the vineyard until spotted by someone with more experience.



Fig 4.8: American vine sprouts from the rootstock.

4.2.3 The ongoing labour of hybridity

As we worked in the vineyards at Valli Unite, from time to time we would come across a dry, twisted trunk of a vine that had died. Surprisingly light, the trunks could be easily lifted from the soil, and brought back to the coop to be used as firewood. The dying of old vines is natural, but a few decades earlier, Valli Unite was a site of a mass dying of vineyards as a plague of a hitherto unknown insect-carried disease, *flavescenza dorata*, swept the country. The infected vineyards had to be uprooted and re-planted, with saplings coming from a nursery such as Giuseppe's. This was an extreme event, while the death of singular vines is a normal occurrence. Like any living being, they also have a projected length of life – sometimes they are allowed to die in their own time, as they become weaker and fall prey to diseases, and sometimes they are uprooted to make space for younger, more vigorous plants, or for a new vine variety: for instance a few years before my research began many vineyards in Veneto, traditionally a white wine producing region, were uprooted and replanted with red Merlot grapes as a response to the global demand for red wines.

The vines are not only historical and material hybrids. The hybridity of the human-vine collective is re-created with every pruning cycle as the inter-dependence of vine and human is reiterated. The vines are woven into or bound to wires in a process which creates seemingly crucified and tortured plant bodies. However, in the absence of this intervention the vines break and suffer, the branches too long and heavy to be supported by the trunks. The vines are hybrid beings the survival of which is maintained in ongoing networks of work and care. The inter-dependence of vine and human is written into the very body of the plant, and the bodies of its carers. The vine has been domesticated by the human, and the human has been domesticated by the vine – whether the relationship is symbiotic or parasitic is open to interpretation.



Fig 4.9: 'Crucified' vine.

4.3 Working with vines

'When particular 'things' are necessary elements of certain practices, then, contrary to a classical sociological argument, subject–subject relations cannot claim any priority over subject–object relations.'

(Reckwitz 2002a)

At Valli Unite, and most other vineyards across Italy, winter is the vine pruning season. At Valli, pruning usually starts after the first frosts, and continues until all the vines have been done, usually around the end of February. Most of their vines are pruned according to the Guyot method, in which each vine has one cane (the fruit-bearing branch) preserved each year, for the generation of next years' many fruiting canes, and one spur, which is for the generation of the replacement cane for the following year. Each vine is pruned by hand; there is no machine alternative for these old vineyards of mixed vines on steep slopes. Experienced pruners are followed by less experienced ones, whose responsibility is to pull down the now dead, cut-off branches from the wires, and place them in the middle of the row, where they will be cut up later and reabsorbed into the soil. Just at this stage, then, each vine is visited twice, by a pruner, and by their follower. There are twenty hectares of vineyards at Valli Unite, and even if we assume a low mean vine density of 2500 vines per hectare there are still at least fifty thousand vines to be pruned by hand. With so many vines to be worked, the winter can be a very long and bleak season indeed.

In the following section I consider the importance of matter and time to learning vine pruning, drawing on my own experience as a novice vine worker. Using my own body as an ethnographic

tool, I explore how vine pruning is learnt by human mindbodies interacting with their environment.⁴ I analyse vine pruning not as a series of disconnected temporal events, but as an unfolding in which every 'element' of the action contains the echoes of its past while also projecting itself into the future (Ingold 2011). The proficient practitioners are the ones who are able to position themselves within this temporal unfolding and see the vine as temporally emergent materiality, not a materially and temporally inert object.

4.3.1 Winter vineyard



Fig 4.10: From the left: Ottavio, Paulus, Zita, Dirk and Lorenzo, looking at a vine.

(field diary 05/02/09)

Finally a day without snow. We meet at eight o'clock to go the vineyard to prune. As we get there of course it starts raining... Anyway, there is Ottavio, who came especially to give some additional instructions to the vineyard workers who have been pruning the vines for a few weeks now. There is Dirk, who is the most experienced of all. Then there are Paulus and Zita, who are more or less at the same level, it's the second year they have been pruning. I don't know how long Giovanni has been doing it, but he has a sure hand, same thing with Nilo. Alessandro and Lorenzo, who have very little experience, mainly look and pull down the



⁴ For other examples of using one's body as a research tool see Gregson (2011), Lorimer and Lund (2003), and Spinney (2006).

cut branches, rather than doing actual pruning. We stand around in a loose group, and Ottavio starts speaking.

Ottavio: I think that as far as the pruning set-up, we're there. What we're lacking perhaps is... There is too much of a difference between the hand of one person and of another. Especially as far as the vines that have suffered are concerned. There are some drastic cuts being made, that can't be understood.



Ottavio looks at a vine in front of him, and makes a cut, leaving a short piece of a branch. Dirk notices – we usually leave it shorter than this, he says. Yes, Ottavio agrees, and takes a little more off. 'But never – like this' he shows a much shorter cut with his secateurs. 'There was a problem like that one year, someone was pruning the spurs too short.' Others nod thoughtfully.



(Fig. 4.10 – 4.12 to the right: Ottavio makes a cut)

'Let's go to the vines that have suffered' suggests Dirk and we move along, up the hill. Just a few rows further, the group reassembles around another vine. I am starting to grow annoyed with my ignorance. To me all the vines look the same; or rather, they all look different, too different to be able to generalise about them, their condition, and what needs to be done, in any meaningful way. I ask:



Anna: I'm sorry, but how do you know this vine had suffered?

Paulus takes me to see another vine – 'See, look at the main branches. Those are not that great either, but... See, this one is much nicer than the other one.' He does not finish as he is called back to the main group. Something important is being said.



(Fig. 4.13 to the right: Ottavio moving on.)

Fig. 4.14 to the right: Paulus makes a cut)

Ottavio is speaking, holding a cut piece of a pruned vine in his hand.

Ottavio: There are many things you have to think about. One is that, even though it was short, it was more or less all right; whoever pruned it last year did the right thing leaving it, because it tried to, still, right? If not it would have been in the first year.

This is not a problem of translation. As Ottavio is speaking, he is running his thumb up and down the pruned part of the vine. I am certain his gestures are more important than what he is actually saying.

(Fig. 4.15 – 4.17 to the right: Ottavio's telling gestures)

It may be he is struggling to put what he is seeing and feeling into words. The problem is that while I can translate his words, I can't translate his caressing gestures. They relate to a world of embodied, material knowledge which is closed to me. The knots and growths and scars on the tissue of the plant are not readable for me. The way Ottavio runs his fingers along the branch reminds me of the Indian knot-writing, where messages were coded onto pieces of string by tying combinations of knots. As he speaks, he engages tactually with the plant. His gestures and his words are one. He looks at me.

Ottavio: You were asking why, Anna. If you look at the fruit bearing branch, which is this one (grabs it for everyone to see) has anyway produced three branches, four, but three which are nice, normal (he tugs on one of the branches lightly to stress its sturdiness) then it is a well-growing vine, nice. While if you look at this one (goes back to the plant he was dealing with before) which produced two buds, of



which one was nice and one was so-so, and where the spur is lower, it's clear that it's not working that well. It's not very strong. Which is why I cut it.

The performance of the vine, then, is judged by the number of branches the main branch produces, and by their 'niceness'. Ottavio cut it right back down. He turns back to the stronger vine of the two he was examining.

Ottavio: Furthermore, I don't know, but... I wish I had seen this [vine] last year... I would leave this, but this I'll cut immediately...

And the illusion of comprehensibility I had for a moment is gone again. Without actually naming the parts of the vine he is talking about, but by indicating them with hardly perceptible movements of his secateurs, Ottavio continues the lesson. To me the vine dissolves into sticks and knots again. For a moment, when Ottavio grabs a long branch and forces it down to align it with the wire, I understand again – this is the fruit bearing branch. But where is a spur? There is none. This rule was not used this time around.



(Fig. 4.18 and 4.19 to the right: Ottavio aligns a cane with the wire)

A discussion starts around me. 'I would leave this one', says Giovanni, indicating one of the branches. 'So would I', confirms Zita. They are agreeing on the interpretation – this branch is the best of all available options to be left as next year's fruit-bearing branch.

Giovanni: Yes, on a vine that has already suffered...

Ottavio: Suffered? What do you mean, 'suffered'? Look, these two branches, they're one and a half metres long each..!

The interpretations differ again. A strong plant in the eyes of Ottavio is a weak one in the eyes

of Giovanni. The length of their experience certainly differs, so the group follows Ottavio's opinion.

Alessandro (to me): It's very creative, this whole process. You need a lot of creativity.

I shake my head. Creativity does not seem to do this process justice.

(At this juncture I encourage the reader to see video 2: "Winter pruning as a violent intervention", on the disk attached).

4.3.2 Vine pruning and *natura naturans*

'The wizard looked down at the cat and realized for the first time how odd it looked now. (...) [D]eath frees the mind from the straitjacket of three dimensions (and) cuts it away from Time, which is only another dimension. So while the cat that rubbed up against his invisible legs was (...) the same cat he had seen a few minutes before, it was also (...) a tiny kitten and a (...) half-blinded old moggy, and every stage in between. All at once.'

(Terry Pratchett 'Equal Rites' 1987 : 18)

Winter vine pruning is a goal-oriented intervention into the living (though dormant) body of a plant. It requires an engagement with the matter of here and now, but the present moment is only given meaning by that which came before, and that which will follow. Successful performance of the skilled action of pruning requires a switch from *natura naturata*, the visible matter, to *natura naturans*, the vital force of time-becoming-matter, the counter-intuitive essence of which was captured so memorably for me in the above excerpt from a Terry Pratchett novel.

The aim of vine pruning is to 'hold back' the vigour of the vine which, unpruned, would channel all its power into producing ever-more extensive networks of branches. Instead, the workers aim to direct the force of the plant into the production of grapes. For this reason only one branch is chosen as a fruit-bearing one, and all the others are cut off, forcing all growth in one direction.⁵ It is also a prime example of embodied skill, which, as Ingold notes, is simultaneously a way of knowing and a way of acting, 'both practical knowledge and knowledgeable practice' (2000: 316). In vine pruning the 'know-what' and the 'know-how' are strongly inter-related as the world acted upon is both teacher and workshop for a novice vine worker. This inter-relatedness of abstract and embodied understanding, and a deep sensory engagement activated during vine work, so well expressed by Ottavio's ambiguous speech and

⁵ This, at least, is the theory, although as we will see in the following sections the vitality of the plant is always working to overcome these limitations, requiring constant effort to contain its 'excess production'.

caressing gestures, prevent vocalised, symbolic instruction as a primary method of teaching. Instead, the classic elements of apprenticeship learning such as observation and imitation are used as novice vine workers follow more experienced ones in the vineyards. The acquisition of vine pruning skill is partly an education of attention (Gieser 2008), that is a 'tuning' of perception to the world of practice. For a novice like me vines dissolved into 'sticks and knots', and I was unable to establish a meaningful connection between my seeing and my doing. To experienced vine pruners, however, vines were heavy with history and with future potential, and were perceived not on the level of form, but on the level of function, of the temporal unfolding of the plant.

Practices of vine pruning are distributed actions, occurring between practitioners and the world. Ingold's (2000) interpretation of basket weaving bears some important similarities to vine pruning. He notes that while the weaver may begin her work with a form in mind,

'the actual form of the basket does not (...) issue from the idea [but] comes into being through the gradual unfolding of that field of forces set up through the active and sensuous engagement of practitioner and material.' (342)

The form of the basket and the way it 'hangs together' is shaped as much by the weaver's work as by the tensions internal to the fibres worked with. The fibres of the basket become participants in the unfolding of weaving practices, not just passive objects on which the activity is exercised. Similarly in the case of vines the pruning cuts are responsive to the already existing materiality of the vine, while also helping to enact its future development. It becomes difficult to tell where the sphere of the vine's agency ends, and the practitioner's begins; the materiality of the vine is co-emergent.

The skill of pruning vines resides in the capacity to both interpret the history of the plant from its present form (from the thickness of its branches, the scars of previous interventions), and to deduce its future potential for grape production. Counter-intuitively, the intervention into the body of a vine requires a knowledge which goes beyond both the immediately visible and the sensible as it calls for an attunement to its possible futures. It requires a switch in perception from the visible *natura naturata*, that is the material shape of nature's products in front of one, to *natura naturans*, that is 'the force which gives rise to (...) observable phenomena, the invisible energy that is recognisable only through its products' (Adam 1998: 30). This perception calls for a temporal as well as spatial and material understanding of the plant, and, as Adam notes, '[s]ince we have no sense organ for time, we need (...) the entire complement of our senses working in unison with our imagination before we can experience [the] workings [of *natura naturans*], in our bodies and the environment' (1998: 55). The experience of temporal cycles of vines is a pre-requisite for the imagining of their potential futures. In the performance of vine pruning time is seen in terms of what Macnaghten and Urry, after McTaggart 1972, call A-series time, in which time is not composed of a series of identical 'instants', but in which

'past events are in part retained within the present and carried forward into the future. The present has duration and is not conceptualised as an instant. The past is incorporated into that present and it also embodies (...) certain expectations of the future' (Macnaghten and Urry 1998: 138).

This understanding of time as an inter-connected continuum which holds both past and future together certainly rings true in the context of vineyard work. In working encounters with plants the past is present in material form, and the future is anticipated similarly through imagined developments in matter. Working in 'the present moment' is impossible, as the present moment is only given meaning by that which came before, and that which will follow. This temporal-material knowledge of the capacities of vines can only be acquired through continuous work with their temporally changing materialities at different stages of their growth. In the acts of pulling down branches which have been cut down by vine pruners the novices have an opportunity to note how the interventions were made, and also to 'get a feel' for the materiality of the vines, the springiness and vitality of their branches, and the strength of their tendrils. Ultimately, however, it is only in acts of pruning themselves that novices can acquire the practical knowledge necessary to 'cut back' the vigorous plants and work towards a high-quality harvest. Winter pruning is risky, a damaging cut can harm the harvest, or even kill the plant. Which is why novice vine workers are trained on green vines, where the malleable materiality of spring vines allows for a different understanding of a vine's capacities, and where mistakes are easier to rectify as the living plant continues to produce vegetation.

4.3.3 Affordances and affectability in vineyard practice

In the following two sections I draw on the experiences of vine work in early spring and in high summer in order to consider the importance of affordances and affectability in the performance of practices. I argue that acquisition of practice requires both affectable mindbodies and affording materialities. I engage in a critique of the way phenomenologically-rooted practice theory approaches engage with embodied skill, and I argue against the vision of an always affording world and an always affectable body in accounts of practice performance. I suggest that the living materials of vines have a differing affective potential, and that this differentiated experience of materiality of vines is an important element of vine pruning practice acquisition (for insights on the differing affective potential of animals see Lorimer 2005).

After Thrift (1999), Geiser (2008) and Harrison (2000) I argue that emotions are key to perception: they allow us to make sense of the world by directing our attention. Emotions, however, are not simply 'inner states', but emotions-in-the-world (Gieser 2008), that is affective reactions to the world and our position within it. As a result certain states of the world and certain states of the body allow for 'attunement' more readily than others. Practices happen in this 'contact zone' of awareness between human and nonhuman bodies (Haraway 2008). The creation of a meaningful connection in the contact zone, a connection which enables practice, depends both on the 'nonhuman charisma' of the world of practice, and the affective capacity of the mindbody of the practitioner.

In the first section, we plunge into the fragrant vineyards of early spring. I argue that the sensual and tactile character of working with vines during the spring period allowed me to understand the vines as living, vital things. In the following section, I focus on the instances of practice breakdown and failure. I explore my and others' experiences of fatigue, exasperation and failure in vine pruning, and I argue for a valorisation of the changing affectability of human bodies. I argue that the world of practice is not homogenous, and is not populated by universally able bodies, and as a result the variable capacity for learning skilled practice has to

be understood with reference to particular materialities and particular human bodies.

4.3.3.1 Spring vineyard

(I encourage the readers at this point to watch video 3: “Lucille explains green pruning to me”, on the disk attached)

(field diary 05/05/2009)

The vines have advanced quite a bit since I last saw them as sad, leafless stumps – although according to Dirk they are still a bit behind in comparison to last year, fortunately, as this gives the vineyard team time to catch up with them (they have not been able to work in the vineyards due to heavy rains until last week). I never realised how dynamically they grew! They are producing shoots all over – from the very base, foot, of the vine, on the ‘nod’ where the old wood (the non-pruned part) meets new wood (the pruned part), from the spur, and from the cane. They don’t look like much now, but each of those subtle green shoots has the capacity to become a woody, proper branch, and most of them are ready to carry fruit too.

The foot of the vine, i.e. anything below the spur should ideally be left clean (apart from a number of ‘special cases’ – special cases being the norm rather than the rarity; for example if a mistake has been made by the pruner and no spur has been left, you have to think ahead to the winter pruning and plan which shoot could potentially become the spur for the next season). Two or three shoots are left off the spur; then, along the cane as many shoots are left as originally there were supposed to be buds – so double branches are thinned, also weaker looking or badly developed shoots are cleaned, as are those on which no fruit is visible – they are ‘a waste of energy’ for the plant. Depending on the vine type and the vineyard we leave seven to ten buds on.

(Fig 4.20-4.24 above: Lucille pruning a double shoot)

Shoots are lovely to touch... Sensually, it is a



completely different experience to winter pruning. Before, I was struggling with woody branches; matter was in serious opposition to me. Now, on the contrary, I have to pay special attention and be extra delicate to make sure you don't do damage (Paulus told me I ought to 'caress the vine' at this stage). The touch carries a lot of responsibility – but not as much as in winter pruning, as the vine will continue putting out new shoots for a while yet, so any minor mistakes can be corrected later by leaving additional shoots. After all, I am allowed to do this work after a fifteen-minute tutorial, not a three-year hands-on training! There is more to see now, the vine seems more alive, and you have to start considering it in its totality – in fact you should have done that in winter pruning too, but it is easier for me to see now. Now it's alive it seems easier to me to think about the force it will need to create grapes, about how many grapes it can support, which branches it can develop, see it as a totality, a living thing. The shoots are a beautiful light green, and they are extremely vulnerable and brittle, they pop off the branch at the most delicate touch. You don't need tools, we work with our hands, apart from a few shoots with wooden bases growing out of the roots hands are quite enough. Soon they get covered in fragrant vine juice, it smells lovely, a fresh, green smell.



(Fig. 4.24 – 4.27 above: A vine before pruning, Lucille's intervention, and the same vine after)

4.3.3.2 Sensual encounters



Fig. 4.28: Leafs of a young vine

Vines go through continual cycles of dormancy and renewal, and at each point their materialities offer different opportunities for sensitive relation-making. The changing materiality of the vine allowed me to ‘connect’ with it on a different level to the one I experienced in the winter months. New affordances become available to my body and mind. The yielding nature of the vine, its fragility, but also its sensual beauty allowed for a moment of enchantment (Bennett 2001), as well as for the emergence of a new sensibility based not on a physical and mental struggle with matter, but on responsibility towards what (I) could clearly see as a living being. The language of practice changed as well, and we moved from pulling and cutting to caressing the vines. The hard, dark, dormant form of the winter vine offered me less purchase for emotional investment and sensual engagement than the delicate form of spring vine shoots. The sped-up *natura naturata* of the vines in springtime enabled a faster appreciation of both the vitality of the plants, and of the most productive directions for their growth. In understanding how working with living things is learnt it is crucial to keep in mind this material and temporal variability, and the consequent variable opportunities for engagement it presents.

While vine work in springtime offered an opportunity for enchantment and sensual pleasure soon the material characteristics of the vines changed again. The ‘excess productivity’ of vines has to be continuously contained through shoot and leaf pruning, an effort which goes on until the harvest. The task is repetitive but not mindless. It calls for continuous mental awareness. As the vine work continued into the hot summer days, I became aware of the intellectual intensity of vine work, and the strain the labour was putting on my ability to perform it well and to learn from it. Additionally, I became aware of the varied levels of proficiency in vine work amongst the vineyard group, which were not necessarily linked to the amount of time they had spent in the vineyards, but rather reflected their own capacity to learn the skill. These observations lead me to engage critically with Ingold (2000, 2011) and his phenomenologically-oriented practice approach. In this section I argue that Ingold’s approach, and that of many

other practice theory scholars, poses important limitations to an understanding of practices of work as it assumes an always affectable, available, engaged body-in-motion. The focus on skill and learning in the context of hobbies and leisure activities has resulted in a downplaying of skill in labour and, on the effort which goes into the performance of practice as a form of work. I argue that although practice theory seeks to overcome the mind-body dualism by focusing on embodied action, in the process it falls back to a de-contextualised, de-materialised 'body' as a sort of ideal Platonic form. Bodies evoked in accounts of enchanted (Bennett 2001), active practices tend to impose 'a Western model of subject individuation where the individuals command control and possess ultimate agency over their corporeal movement' (Bissell 2009: 915). Importantly, the effort of work practice implies a differentiation between more- and less-capable bodies (not all of us can be proficient ballet dancers). An examination of fatigue and failure as inherent to, not exceptional in, the unfolding of work practice allows me to appreciate the temporality of skilled practice emergent from an interaction of fleshy and tiredness-prone human mindbodies and differentiated nonhuman matter.

4.3.3.3 Summer vineyard: fatigue

(field notes 09/05/2009 and 25/05/2009)

Green pruning quickly loses its initial appeal, and the pains in my back and in my legs remind me that first and foremost it is hard work. When you're doing the n-th vine row of the day, you are at risk of starting to go on auto-pilot when pruning. It's a dangerous situation. Dirk catches up with me, silently improving my work as he goes along.

We were working in Vignia di Guglio. I went through the row very quickly, and I made a lot of mistakes. Dirk passed through that row again, and with quick glances spotted my omissions – walking past the vines, he would bend down and prune a bud here, a bud there, he would be attracted by too much vegetation in one place and take it off. As he was working, he was thinking ahead, to the next stage of vine growth and beyond that, to winter pruning.

Dirk: You left two doubles. It is very uncomfortable for us later when we prune if you leave double shoots, because they grow one next to the other. (...) [chuckling] There are thousands of things to keep in mind, thousands of things...

The tempo of vineyard working is very different



to the work at the winery. The weather has gotten really hot, and the work in the vineyards has had to adapt. For the last few days the vineyard team has been starting work at six in the morning, working until twelve, and then starting again at five and finishing at eight. The heat gets too much to be in the field in the afternoon, Lorenzo especially is suffering, and having nose-bleeds from the heat, but others are not feeling well either, even Dirk nearly passed out, and his balding head is getting browner by the day.

When working the rows, we become fully submerged in the plants. Hardly anyone talks, and we all concentrate hard on not making mistakes. Every few rows, every hour or so, we take a break, sit on the grass for a quarter of an hour and smoke and drink water. Some stretch out on the ground to give the back and the arms a rest, after all we are spending the day bent in two. Alessandro, the *cantiniere*, walks past and jokingly tells us off for loafing about.⁶ Dirk waves him on, but gets quite defensive after a while. It is hard work, he says, lying in the shade of the leaves. The winery workers don't get it, but it requires so much concentration, it is intellectual as well as physical. If you let tiredness take over, and you start going on auto-pilot, and you can do a lot of damage.

(Fig. 4.29-4.32 to the right: back-breaking work of pruning. From top: author, Paulus, Dirk, Dirk at rest)



⁶ *Cantiniere* means literally 'cellar worker', and this was how Alessandro described himself to me. For some considerations on translation, see chapter three.

4.3.3.4 Mistakes in Davanti Ottavio



Fig. 4.33 & 4.34, vine before and after green pruning.

(field diary 18/05/09)

Dirk: The small shoots, you have to take them off, because there are honestly too many here...

Anna: Oh yes?

Dirk: Oh yes! (laughs)

Anna: And I was leaving as much as possible, because I thought, in the other rows, there was hardly anything...

Dirk: Yes, well, we misunderstood... this is not Timorasso.

Anna: This is not Timorasso.

Dirk: No.

Anna: So, what is it?

Dirk: Saslá.

Anna: What... what kind of grape is that?

Dirk: It's a table grape.

Anna: Oh, it's that one!!! Shit.

Dirk: Yes. In fact, if you look well, it's red, Timorasso is not like this, Timorasso also has this very very fine down...

Anna (sighs): Ok, I'll do it again.

Dirk: Yes, you need to really, because we pruned it too long (in the winter pruning) because we wanted to have grapes, and now it makes a hundred grapes per plant, so that doesn't work.

Anna: Ah, cause you thought it was Timorasso... I get it.

(a bit later)

Dirk: There is an incredible amount of grapes here...!

Paulus: Do I need to tie them up then?

Dirk: Yes, yes, but if we leave them long like this we will have forty, fifty grape bunches per plant, you know? Maybe not in this row, but the one I did... Look, fifty grapes.

Paulus: Well I don't know what I did... We came from rows where there was shit all...

Dirk: I know, I know, but this one...

Anna: I guess I'll do them again, for a third time!

Dirk: Yeah these need to be done some more, all right?

Anna: All right then. (laughs)

Dirk: Yes, because here the whole thing about the light is not important. In Timorasso I pruned to let the light in. Here this does not matter. It's about the grapes. Let's count how many there are (counts along a fruiting cane), grapes, shall we?

Anna: Go on.

Dirk: This is after we've done this twice, right...

Anna: One, two

Dirk: Six, eight, ten, eleven, thirteen, fifteen

Anna: No, this is another plant!

Dirk: No, that's still this one. Nineteen... Twenty one...

Anna: I see one more

Dirk: Twenty seven.

Anna: Twenty seven!

Dirk: Yes, and it doesn't look like much, look how much light there is (i.e. many shoots have been pruned already and the light can penetrate well).

4.3.3.5 Understanding practice breakdown

Vineyard work is not all greenery and light. Vine pruning is laborious not only as a repetitive and physically demanding task, but also as a task which requires constant, and (especially in the case of novices like me) conscious attention to what is being done. Vine pruning is a particular example of skilled practice, which requires a constant mindfulness from the practitioners. The experience in the vineyard Davanti Ottavio made us all laugh at our incapacity; it was the end of the day, and the transcribed conversation does not convey the annoyance and tiredness in mine and Paulus' voices as we realise we need to re-do our work again and again. A slip in attention (and, in my case, certainly lack of knowledge) made us blind to the moment when Timorasso vines became Saslá vines, and we failed to adjust our work adequately. Our mindbodies were not attuned to the environment of practice. After all, it would have been easy to ask for clarification or additional instruction from Dirk, had we noticed the change. Instead, ignoring (not noticing?) the information the plant was offering, such as the different leaves, and the presence of multiple grape clusters on each plant, Paulus and I continued, machine-like, insensitive, unreflexive, to prune in the way we had been instructed to earlier.

What happened? What was the significance of those moments of planned and unplanned disconnections of attention from the material world in which the work was taking place? In many practice theory approaches, the human mindbodies are typically depicted as active, affective and aware by default. For Ingold, as Harrison (2009) notes, there is no gap between practitioner and practice, and the roots of action are conceived less in terms of willpower, and more in terms of affordances of the mindbody and its environment. This notion of an effortless connection between doer and deed is problematised in the context of vine pruning, which requires constant and conscious, even tiring mindfulness on the part of the practitioner. If we take Ingold's (2000) approach to all action as intra-action, moments of fatigue and disconnection must be understood as instances of 'practice breakdown', moments in which the meaningful 'contact zone' attunement is lost and practice breaks down into an un-thinking, machine-like worker, and a mute, dis-affected world.⁷ In practice theory approaches, such moments of slippage and the resulting mistakes in performance of practice are typically conceptualised in a positive manner, as opportunities for the mutation and development of practice. However,

'...while awkwardness and misalignment may well be the 'condition of possibility of all technique', they also indicate an absolute limit upon such technique. While awkwardness and misalignment give the chance of improvisation, they at the same time give the chance of *failure*, and this chance must always contain the chance of *radical* failure. (Harrison 2009: 995, emphasis in original)

In line with Harrison, I suggest that disconnection and numbness to the world, caused by tiredness or ignorance, are the norm, not the exception in performance of skilled 'artisanal' practice such as vine pruning. And what this normality of mistakes and even failures says about skilled practice as an act is that it is anything but effortless. Indeed, achieving the perfect attunement where the mindbody of the practitioner disappears into the practice is an ideal

⁷ See Ingold 2000 p. 308-10 for a comparison between the work of an attuned artisan and the work of a disconnected assembly line worker.

state towards which we continuously strive, but rarely achieve⁸. The work of even the most experienced practitioner, such as Dirk who is truly in his element in the vineyards, has a wavelike temporal quality in which peaks of attunement change into lows of disconnection. This temporal changeability is written into the very unfolding of work practice the intensity of which cannot be sustained for long periods of time, or in the difficult conditions of mid-day heat. Without the underlying chance of radical failure, this skill would not be skill at all, but a physiological function like breathing or digesting. It is the threat of radical failure which makes us marvel at ballet dancers who perform without breaking their ankles, or rock climbers, who progress without falling off the cliff (Harrison 2009: 995). The marvel of skilful practice is its seeming effortless, which is however underlain by labour, effort and discipline. It is easy to slip and disconnect, it is difficult to stay attuned and 'in the zone'.

This ongoing effort of skill implies a differentiation between more and less able performing bodies. The experiences in the vineyard suggest that not all of the world is affectively available to us in the same way, and, furthermore, the individual capacities of the individual impact on his or hers capacity to build a mindful relationship with the world. Furthermore, even the most skilled practitioners are not available to the world in the same way at all times. Finally, not everyone is equally capable of participating in the world through certain practices: the capacity of bodies to 'disappear' into skilled practices should not be assumed (Harrison 2009: 994). In the context of vineyard work it was clear that we all had variable capacity for being affected by the vines, a capacity not necessarily connected with our amount of experience of working in the vineyards. Early on in spring pruning Anna, one of the cooperative members, was excluded from the green pruning team as, in the words of Dirk, she 'wasn't getting it'. While she was allowed to work in the vineyards in previous years, the grape scarcity of this vintage meant more attentive workers were needed. I also quickly learned from other workers that the team members had pruning 'personalities', which were made manifest in the bodies of pruned vines. Nilo was known as a 'butcher' as the vines he pruned were done well, I was told, but harshly, without the individual attention and care characteristic of Dirk's work. Dirk was often called 'the gardener', or 'the mummy' (*la mamma*). I remember him well, arm-deep into the vine, his face covered in sulphur falling from the leaves, or pacing in the lunch room, always worried, always pensive, with one eye on the weather, fearing the drought.

Dirk embodied the artisan-like, positive, self-intensifying engagement with the world which tends to dominate work practice analysis in practice theory approaches (Bissell 2009). This positive interest in the world, this artisan-like dedication, this 'affectability' which Dirk displayed, however, is not a given, but a result of ongoing labour of attention which comes easier to some than it does to others, while others still are incapable of learning it at all. Humans are subject to mindbody moods and emotions, such as boredom, which impede their engagement with the relational materiality described here (Anderson 2004). Simply, not all humans fall into the category of 'friends of interpretable objects' (Bingham 2006), not all are interested in the deepening of engagement with the materialities they work with. Mistakes and failure are a result of this variable emotive engagement are therefore not exceptional, but instead inherent in performance of skilled practices.

⁸ See for example Haraway 2008 on the laborious processes of training necessary to achieve perfect synchronization between dog and owner in agility trials.

In the preceding sections I considered the how the affective relationship between vines and vine pruning humans changes in time, in space, and how it differs between individuals. In the following section I step back from individual encounters between humans and vines, and consider the relationship between vineyard workers and entire vineyards. I suggest that vineyards are a prime example of Ingold's (2000) taskscapes, that is spaces in which human and plant activity influence one another and materialise over prolonged periods of time. In the next section I focus on the temporal emergence of vineyards as spaces of material communication between vine growers and vines. I also tackle the crucial issue of indeterminacy in vine growing, and explore the strategies used by vine growers for dealing with uncertainty in the context of goal-oriented production.

4.4 Vineyard taskscapes, temporal emergence and indeterminacy

Vineyards are spaces of temporally emergent human and non-human activity, or what Ingold (2000) terms 'taskscapes' that is sedimented records of ongoing human and nonhuman co-becoming (see also Barad 2007). As was explored above in section 4.2, knowledge about vines and understanding of vine work practice requires a temporal vision of vines as growing, changing entities. I employ Ingold's (2011) differentiation between static, classificatory knowledge of abstract entities and the dynamic, temporally-unfolding and open-ended knowledge of things-in-practice as I consider the importance of stories to the understanding of practices in vineyards. Furthermore, I employ Pickering's (1995, 2005) 'tuning' to understand the open-ended and experimental character of knowledge about vineyards, and the ambiguous assessments of success and failure in vineyard management practice. After Adam (1998) I suggest that the long temporal cycles of nature make it impossible to think about rational action in a positivist manner. In contrast to positivist understandings of knowledge acquisition as a cumulative process culminating with a fully known world, in vineyard practice the acquisition of knowledge is an experimental, temporarily emergent activity characterised by a mutability of goals. At Valli Unite, vineyard workers were not trying to establish 'the truth' about the grape scarcity which occurred during my fieldwork. Instead, the goal was establishing productive worker-vineyard relationships which did not seek their own intensification (obtaining perfect knowledge). In contrast to the agri-industrial model, understanding was not aimed at continual increase of yield, but at a maintenance of a stable space of cooperation between workers and vineyards. Only radical events such as disease outbreaks or continual failure to produce fruit resulted in equally radical interventions on the part of the workers. These interventions were not conceptualised in terms of 'right' or 'wrong', however, but were assessed relationally as responses to the exigencies of the moment.

4.4.1 Vineyard stories and caring relationships

Growing grapes is a long-term undertaking. Vines are long-living creatures, and their vegetative cycles are long as well. A vine will produce grapes from the very first season, but it takes at least two years before the grapes are considered to be of 'usable' quality. In Paulus's opinion, 'you need six, seven years before they start producing more balanced grapes' (09/05/09). During my fieldwork the cooperative was still emerging from a crisis of a *flavescenza dorata*

breakout during which they uprooted and replanted half of their vineyards.⁹ Young vines are more productive, but their grapes are of lower quality, and so require long periods of ‘training’. Production of high quality grapes emerges as a distributed effort of human and nonhuman agencies, including vines, soil, slopes, and weather. However ‘channelling’ a vine’s ‘energy’ into grape rather than leaf production requires continual human effort of winter and green pruning, both during the yearly cycle, and during a vine’s lifetime. The process of ‘training’ takes many years, and noting the difference – and efficacy – of interventions requires a long-term relationship with the vines. Both Paulus and Dirk had been working with the vines at Valli Unite for a number of years now, and their practices of vine pruning are situated within a longer ‘story’ (Ingold 2011) of the vineyards.

4.4.1.1 Training vines



Fig. 4.35: The vineyard team in Vignia Nuova (can you spot them?).

Vigna Nuova (fieldwork diary 07/05/09)

We were working the Vigna Nuova today, the massive, steep-sloped vineyard under the cooperative’s buildings. I overheard Dirk instructing Lisa to leave fewer branches on the plant, and, concerned about my own work, I asked if we were not aiming at leaving more grapes on the plants this year.

⁹ Flavescenza dorata is an insect-spread viral illness which eventually causes the death of the infected plant.

Dirk explained that this vineyard, Vigna Nuova, planted largely with red Barbera grapes, is supposed to become the main vineyard for the Vighet label, Valli Unite's best and most expensive bottle.

Dirk: Last year, for example, there weren't that many grapes, but all the same we went through the vineyard and plucked bunches off to make the vineyard used to making fewer. And, in fact, it is already making fewer. I don't know if it's a belief or a scientific thing, but it works. This vineyard always has to produce little, and of high quality. It is different with Barbera in Vigna di Carla – the terrain is more flat, and there is less clay, so we know the grapes will always be less good, so we leave more on, for the demijohns, or less expensive bottles.

During the first break, Dirk gives us additional instructions.

Dirk: A technical observation, the top part of this vineyard has suffered more, so if there are less grapes per plant there that is absolutely fine. (...) Because it's much drier there. Down here 12 grape bunches per plant are fine, up there – no. (chuckles)

Paulus: There is another explanation here. When we planted this vineyard there were a few very dry years. The roots never reached a certain length, they remained quite short, so if there is no water they really can't get any.

Zita: But doesn't it grow more roots, over the years?

Paulus: Yes, but very slowly, because the soil is very compacted. (...) They're like babies that did not get enough to eat when they were little.

Dirk: In certain vineyards there are some vine replacements that have been there for ten years, and are still dwarfs.¹⁰ (...) Because if the vine does not develop immediately, the soil becomes compacted and it really struggles.

4.4.1.2 Lifeworlds of vineyard work

As was discussed above, practices of vine pruning are not singular events. They form part of an ongoing relationship between vineyard workers and the vineyards in which interventions such as vine pruning are used to capture the productive agency of vines. In this relationship, care and utilitarianism are difficult to distinguish. As Convery et al. (2005) note in the context of a UK foot and mouth disease epidemic, using (or even killing) living non-humans is not antithetical to caring for them. Their concept of 'lifeworld', that is 'the spatial, emotional and ethical dimensions of the relationship between landscape, livestock and [farmers]' (101) adds an emotional and temporal dimension to Ingold's (2000) concept of dwelling. The lifescapes of

¹⁰ When singular vines die due to illnesses, or pruning wounds inflicted by an inexperienced worker, they are replaced with new saplings. As a result a mature vineyard may have a few younger plants growing between the older ones.

vineyard work include care for young vines which struggle 'like babies who do not get enough to eat', as well as the ripping up of disease-ridden or unproductive vineyards. The telling of stories makes it possible to situate the moment of encounter at green vine pruning in the longer temporal frame of a vine's lifecycle, even for those who have no direct experience of its growth. Storytelling knowledge, Ingold (2011) notes, is a knowledge which emerges through practice, and which is always open and 'under construction'. This knowledge is not 'transmitted as a complex structure but is the ever-emergent product of a complex process' (159). I would take Ingold's work further to suggest that in contrast to classificatory and abstract modes of knowing, storytelling knowledge about the world does not seek closure. The aim of storytelling knowledge is not to perfect its hold on the knowable world, but to maintain a space of productive engagement, a 'lifeworld' in which no-one gets to be the master narrator, but in which things unfold within loosely defined boundaries of acceptability, without in-built attempts at tightening the net of control. The open-endedness and context-dependence of the 'storytelling' mode of knowledge implies there are no 'perfect forms' or 'ideal scenarios' which could be compared with current states of the world. Instead, interventions and actions are judged on a scale of acceptability which includes qualitative considerations about yields, grape quality, vineyard 'balance' and vine health. In the following section I explore how the situations of uncertainty are dealt with in this context, and suggest vineyard workers are always engaged in a process of experimental 'tuning' in the vineyards.

4.4.2 Vineyard stories and acting in an uncertain world

During my research at Valli Unite a debate about grape quality was taking place between Ottavio and Alessandro, responsible mainly for winemaking, and the vineyard team. Since the 2008 harvest vineyard practices were changed in order to bring the grape quality in line with the needs of the winery. Until then the vineyard team workers were encouraged to prune the vines heavily at green pruning to limit the number of fruit-bearing branches and obtain fewer but high-sugar grapes. This has led to strong-tasting but also very alcoholic wines at the winery, a tendency Ottavio and Alessandro decided to reverse in the 2009 vintage, following their perceived demand in the marketplace. For the vineyard workers this meant leaving more grape-bearing branches per vine. However, when April came it became apparent that the vines were producing fewer grapes than anyone had predicted. How was this upset to the *cantinere's* plans understood and responded to? As the vineyard team brought news that more and more vineyards were giving a low yield this year, the workers began to speculate about the possible reasons for the scarcity, and plan possible changes to vineyard practices in response to this change in productivity. Tentative cause-effect relationships were formed, but without referring to any method for establishing 'a truth' about the situation in an indisputable manner. Instead probabilistic and qualitative causality links were suggested, and possibilities for experimental engagement to achieve change were proposed.

4.4.2.1 Grape scarcity

(based on field notes 05/05, 06/05 and 08/05 2009)

(At this point I encourage the readers to watch video 4: “Dirk explains the green pruning of Barbera plants”, on the disk attached)

There are fewer grapes on the vines than there were last year, in general, Dirk and the others tell me. Last year, as the vines were flowering they went through a period of heavy rains, and Dirk and Lucille think those rains are the cause of the current scarcity. As we work in the vineyard doing green pruning, Dirk explains to me that those delicate green shoots which will become next year’s fruiting cane already now are ‘deciding’ how many buds to put out for the following season, and whether they should be leaf or grape-bearing buds. The vine, he tells me, plans its activity a year ahead. Lucille overhears him, and chips in, supporting his theory and complaining that she had been telling people during winter pruning not to blind as many buds on the fruiting cane as usual because there would be fewer grapes the following summer – but no-one took her seriously.



Fig. 4.36: Dirk indicates next year’s bud.

After lunch, we move from Vignia di Massimo to prune vines growing at Ciabattino and Ricardo, where a mix of red-grape vines is growing, including Merlot. Dirk examines the shoots, and comments that Merlot seems to have produced very little fruit this year, but he doesn’t know why. Instead of pruning the upper shoots the usual way, he tells us to only clean ‘the foot’ of the vine, and leave practically anything else that looks like it may be carrying a grape – even those shoots that grow out of ‘old wood’, or out of scars. The grapes are the most important thing.

Later in the evening I go for a run in the vineyards, and I notice Franco’s car parked in the vineyard we had worked that day, and him standing wondering at the vines. The next day I listen to Franco discuss his observations with Dirk and the others

over lunch. The Merlot vines, they agree, are definitely not doing so well this year, they are producing very few grapes. They think this was caused by this year's winter pruning – they had 'blinded' too many buds, and now there are not enough fruit-bearing ones. Both Lucille and Dirk agree that it is time to change that technique and not blind the buds any more. They used this technique to limit the amount of green pruning needed later in the season, but blinding buds, that is taking them off the fruiting cane, is tricky, you have to do it so as not to harm the plant, and you can't take too many off either. Some vines only bear fruit on buds further up the fruiting cane, for example, so if these are blinded, there is hardly any fruit left. They agree that not all workers doing winter pruning have the same amount of experience, and that their mistakes are costing them fruit at this stage.

Two days later we work in the Pernigotti vineyard, where there are fewer grapes than usual, but there are some at least. In the afternoon we move to Prosoni, however, and there vines have no grape bunches at all. We are starting to feel a bit worried. I ask Paulus about his interpretation, and he tells me not to worry, and to put my trust in the vines.

Paulus: But they will become bigger, the grape bunches. Because there are less of them, it's always like that. If there isn't a real drought; because they say that the weight the plant produces does not change all that much from one vintage to another. It [the plant] self-regulates, you know? There will be a reason why it's not producing that many.

Later in the day I ask Ottavio about this strange, scarce vintage. He thinks that, as far as the Merlot vineyard is concerned, the reason may be because of the powdery mildew it suffered when the buds were forming. In general Ottavio claims that there are alternating years of low and high yields, and he thinks this year's low is a part of a natural cycle, and nothing to be alarmed about.

4.4.2.2 Indeterminacy of action in the vineyards

Once the grape scarcity was observed, different theories were offered to explain it. Dirk and Lucille suggested that the scarcity could be attributed to the impact of the spring-time weather two years previously. Furthermore, they noted how the already low productivity had probably been exacerbated by the over-pruning of buds last winter. Ottavio offered two possible explanations, attributing the low yield to a powdery mildew outbreak the previous year, and to the natural high yield-low yield cycle the vines go through. While there were multiple interpretations proposed, there was no concern for establishing the reasons behind the low yield beyond a shadow of doubt. Instead it was suggested that the area the workers have control over, that is the pruning of the buds, be modified in the next winter pruning season. The causal links between various processes or occurrences and the grape scarcity was neither 'denied' nor 'confirmed'. They were rather seen in probabilistic terms, without a guarantee of obtaining an indisputable 'proof' in the future.

The attitudes of the vineyard workers undermine the image of agricultural workers as fully

informed agents relying on tacit and/or local knowledge to model their environments to their needs. Let us not forget these workers are members of the cooperative, and therefore individuals with a vested interest in a survival and prosperity of the cooperative winery. In spite of that, their way of relating to the changes in their local ecosystems recalls the behaviour of anthropological 'non-moderns' (Latour 1993), such as the Cree hunters studied by Peloquin and Berkes (2009), or the Ojibwa hunters and trappers analysed by Ingold (2000). Just as in the case of the hunters rationalising the changing size of herds, vineyard workers make their observations of changes in the vineyard environment in a relational context, and causal lines remain uncertain. The focus, I suggest, is on adaptive learning rather than tight control of variables (Peloquin and Berkes 2009). The vineyard workers knowing of indeterminacy (Hinchliffe 2001) stands in a sharp contrast to the agri-scientific approaches which are seen to dominate food production today. The vineyard stories highlight that grape production at Valli Unite was about a maintenance of productive space, the exact boundaries of which were not easily determined, and which were context-dependent. Only drastic events such as the *flavescenza dorata* outbreak, or ongoing grape scarcity in a particular vineyard produce an active response. This is well illustrated by the story of Davanti Ottavio, a vineyard the cooperative workers had been struggling with for many years.

4.4.2.3 'The wrong place'

(fieldwork diary 18/05/09)

I am chatting with Dirk and Paulus as we tie up newly grown vines, and I ask them about vineyard problems and disasters. They tell me of the old vineyard in front of Ottavio's, which has always produced few grapes. It has a mixture of vines, mainly of Croatina and Timorasso variety. Over the years, they have made various attempts at increasing the productivity of this vineyard by changing the vine training system.

Paulus: To hold those plants back a bit we pruned it *cordone speronato* style, but it did not work, so we re-made them again *Guyot* style, nothing. It does not produce grapes, this place, it's the wrong place. Ottavio got these clones in the 90s. It's always been a disaster, always, every year. You go to harvest – a bit here, a bit there... And you have to do twice as much work [because the vines produce a lot of shoots] to bring nothing home. It's not sensible. We should either rip this vineyard out, or graft the vines with something else...

Anna: So, in your experience, do other Timorasso vines behave like this?

Paulus: No... The Timorasso, for example, that we have below, in Cazarsa, in Vigna Nuova, they're beautiful, they produce a lot. Only here. Everyone says it's the wrong place.

When working with natural systems, Adam (1998) notes, uncertainty has to be accepted as part of the game. She notes, in the context of environmental risk management, that the very capacity to manage is dependent on assumptions that cannot be fulfilled when one deals with

ecosystems. Management, she notes, implies a boundedness of that which is to be managed, the possibility of establishing causal connections, and the accessibility to measurement, quantification and control. However, the unfolding of processes in the context of ecosystems, such as for instance pollution by a certain chemical, is characterised by 'invisibility and periods of latency after which outcomes are no longer traceable with certainty to original sources' (81).

Over the years agri-industrial systems have attempted to deal with the inherent indeterminacy of ecosystem processes by a progressive 'outflanking of nature' (Murdoch and Miele 1999) and increased labourisation (Latour 1988) of agricultural systems. In the context of Valli Unite vineyards, however, the notion that the local natures of vineyards are knowable is put into question. The interventions aimed at increasing the productivity of vines at Davanti Ottavio are experimental as workers engage in a dance of agency (Pickering 1995) with the complex ecosystem of vines and vineyards. Davanti Ottavio, they conclude, is 'the wrong place' for growing Timorasso grapes because the vines are not responsive to their attempts at changing their productivity. The next suggested tentative engagement is to graft the vines with a different type of grape, and to see what happens. The inherent uncertainty of working with vines is dealt with through this open-ended and experimental approach.

4.5 Conclusions

This chapter explored the taskscapes (Ingold 2000) of vineyards as spaces of goal-oriented engagement between humans and vines. Through an examination of vine pruning practices, I focused on the questions of skill and knowledge in vineyard work, and on the participation of the material world in the acquisition and performance of skilled practice. I examined the long-term and complex process of vine pruning skill acquisition, and I argued that practice theory accounts need to move away from visions of an always affording world and always affectable bodies and recognise the effort of staying 'in the contact zone' when working with the material world. I argued that in accounts of skilled practice we need to withhold from a glorification of effortless artisan-like attunement to the material, and valorise the work of keeping a mindful connection between practitioner and practice, as well as show sensibility to the variable affective capacity of human bodies.

In this chapter I portrayed the vital 'natural' materialities of winegrowing as neither determining nor constructed, but as a significant, active, and creative co-participant in the growing of winemaking grapes. I also problematised the idea of matter as a-temporal by exploring the importance of both past and future materialisations in proficient performance of vine pruning. I suggested that both embodied experience and storytelling are important to working with the vital, changing matter of plants. Thus in this chapter I started to move away from the visions of mute matter managed by active humans, and towards practices and spaces as co-creations. I also explored the uncertainty and indeterminacy of vine growing work, and the temporal emergence of goals in the context of vineyard management. I suggested that vine work is better conceptualised not as an exercise in human intentionality on the mute world of matter, but as experimental 'tuning' (Pickering 1995), a process in which vineyard workers sometimes succeed and sometimes fail to capture productive agency of the vines. As a result success is measured not by a comparison between a pre-existing 'idea' independent of matter at hand, and the final 'result' of its execution, but by staying in a productive relationship with

the vines without seeking to control all the variables. In the next chapter, I explore the ethical dimension of working with unpredictable vital materials in organic winemaking, focusing on the risky moments of fermentation of wine, and the ethical status of 'yeast' as a controversial entity in organic winemaking.