GIVING NATURE BACK TO THE GODS

Skill, Perception and Identity in the Making of Biodynamic Agriculture

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Abstract

Since the 1960s, there has been a marked dissent against conventional forms of agriculture in certain American subcultures. Critics argue that industrial agriculture not only deteriorate the soil and ruin ecosystems, but also poison the food supply and destroy local value-chains. Marking opposition to these modes of production a growing subculture is turning towards alterative agricultural paradigms. California, the land of golden hills and silicon valleys also houses a booming industry of such countercultural modes of agriculture. Among these, organic and biodynamic agricultural practices are the most notable. Based on six months of participant fieldwork on a biodynamic vineyard in northern California this thesis explore the complex ways people conceptualize, give meaning to and organize around agriculture. In doing so, it draws on a wide literature on the spiritual and religious aspects of environmentalism. Presented as a part of the project "Cultures and Biodiversity, perception and practices" it seeks to explore the dialectics between practice and perception in regard to nature. The core question of the thesis is how the theoretical framework of biodynamic agriculture is used to create a new local knowledge and how this knowledge shapes an animist way of perceiving nature and informs agricultural decision-making. In turn it is argued that personal experience of nature and its sacredness is founded on a dialectic between experience and cosmology, and that both these underpin a moral incentive for farmers to adhere to biodynamic practices. Furthermore it is argued throughout this thesis against representationalist approaches to nature. Rather than taking the environment to be a neutral space occupied by human categorization, this thesis explores ways in which nature resists brute categorization. Drawing on the works of Tim Ingold it is argued that elements of landscapes such as skilled manipulation, biodiversity and ritual processes are better understood as emergent forms of meshworks; complex and diverse processes of growth and decay. It is through these meshworks that spiritual modes of experience and magic modes of control are explored.

Keywords: Biodynamic agriculture, organic agriculture, biodiversity, anthroposophy, identity, skill, perception, spirituality, magic, place.

Acknowledgement

Before we get started, it seems only fair to start by expressing my most sincere gratitude to all those who let me into their homes, hearts and gardens. None named and none omitted. It goes without saying that this thesis could not have been written without your openness. I occasionally catch myself thinking that I did not show you enough gratitude while living with you. Although I never made much good as a farmhand, I hope the following pages will show that I was indeed there to learn and that I hold each and every one of you in the highest regard. I would also like to thank Glen McGourrty at University of California Davis for believing in the potential of a humble graduate student from Norway, and for opening the field of study enough for me to sliver in. From that moment on, there was hardly a closed door to be found.

Furthermore I must thank my advisor Harald Beyer Broch. His grip on the reins of this project has been loose but firm. What better working conditions can one want? The participants of the CUBI-project also warrant my sincere gratitude for providing a stimulating academic environment. Among these Anne Katrine Brun Nordby deserves special commendations for bringing my co-students and me into the academic fold. Then there are all my colleagues, co-students and friends at the department of Social Anthropology. Thank you for insightful discussions and good laughs. In writing, as in life, we often find that the goal is not as pleasurable as the path itself. It has been a pleasure to share this path of writing with all of you, despite frustration, uncertainty and disagreements.

Finally my warmest thanks go to Ken Boek, for being my friend throughout fieldwork and for remaining so till this day. It is all too rare in this world to meet somebody with whom the world is as vivid and open as it was when driving around with you. Although hardly present in this text, you hold a special place in my memory of California and in my heart.

Eivind Eggen

Oslo, May, 2013

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Fieldwork and farmwork

An approach to studying nature and culture in biodynamic agriculture

"The sun, with all those planets revolving around it and dependent on it, can still ripen a bunch of grapes as if it had nothing else in the universe to do"
- Galileo Galilei

Luminescent domes suspended from the ceiling bathed the room in a stale light. The lecture "Secrets of the sun and moon" was in attendance and only a periodical roar from the heat pump, that was keeping the cold air of the California winter morning outside, disturbed the speaker and his audience. It was early January and the second day of the winter meeting of the Biodynamic Association of Northern California (BDANC). About 60 people from the neighboring counties had gathered, in the multi-purpose-hall of the winery at the Grata family vineyard in Sequoia Valley[1], Mendocino County. For the 10th year in a row the Grata family was hosting the winter meeting of the BDANC group, a weekend seminar with lectures, workshops and socialization among farmers, young and old.

I arrived the day before. Glenn McGourty, an associate at the local agricultural extension of UC Davies had offered to pick me up at the Charles M. Schultz Airport in Sonoma County and drive me up to Sequoia Valley for the conference. Upon arriving in Northern California, he was my only contact with access to the community of farmers I had set out to study. Glenn had, prior to my arrival, suggested I contact the Grata family, as it owned one of the few vineyards in the area known to regularly take on inters. My assumption was that if they could house an intern, they might house a field-working anthropologist too. I first become aware of biodynamic agriculture while working with my bachelor thesis on the significance of place in winemaking one year prior. Since then, I was set on doing a participant fieldwork on a biodynamic vineyard, despite several warnings of how difficult it entailed. Thus warnings that the conditions up at the Grata ranch might be a bit rustic did not bother me. While preparing for fieldwork I came upon claims made by such farmers that intrigued my curiosity

immensely. It was said that biodynamic farmers made wine in which you could "taste the life forces". Having spent some time reading about taste-experiences in wine, I had never heard of anybody tasting spiritual energy before. So when a project at the department of social anthropology at the university in Oslo suggested studying religious influence on people's perception and practices in regard to nature, I jumped at the opportunity. Biodynamic agriculture, as we will see, is a practice with roots stretching back to the time just after the First World War. In 1924, the philosopher Rudolf Steiner held a series of eight lectures in the town of Koberwitz in Poland. These lectures were a response to farmers reporting a loss of quality in the seed-chains of their domesticated plants. Biodynamic agriculture has since spread around the world, and has recently, alongside organic agriculture, experienced a rapid growth in popularity in California. Studying it, I figured might provide insight into the development of a new way of talking about wine.

Attending the winter meeting of the BDANC-group was my first real chance at accessing the field. Before I left, I had attempted to contact a number of different vineyards in order to secure a place to do my study, but had not succeeded in doing so. Most of my attempts at contacting farms were left unanswered. Then, upon contacting the Grata ranch was informed of the upcoming meeting of the BDANC group and invited to come up for the duration of the seminar. I spent the weekend soaking up the atmosphere of the farm, engaging in conversation with anybody who would talk to me, and attending lectures. Although I wanted to focus on the practice and perception of biodynamic agriculture, these mostly theoretical lectures helped me frame my early research questions. Dennis Klocek, a lean and white haired man and a seasoned anthroposophist[2] held the main lecture on Saturday. He was talking about how the moon and the stars influence the growth of plants. Towards the end of the lecture, he addressed the audience saying "The role of biodynamic agriculture is giving nature back to the gods". The quote seemed to strike a cord with many in the audience. To me, at the time it was impenetrable, seemingly indicating some sort of sacrifice and a hitherto unknown group of deities. The quote stuck with me however, and throughout my fieldwork, eventually became clearer. The following thesis will to a large extent explore ways of understanding this this act of "giving nature back to the gods" and the practice of "sacred agriculture".

Theorizing the culture in biodynamic agriculture

As I was preparing my research questions, the now late Arne Kalland proposed a comparative study of the significance of religious or spiritual world-views for interaction with nature as a part of the "Culture and Biodiversity: Perceptions and Practices" (CUBI) research group. The overarching subject suggested for research in Kalland's project was how local, religious or scientific worldviews influence people's ways of interacting with nature. In facing a rapidly changing environment he noted a trend in the discourse of nature-conservation to focus to narrowly on explaining the hazards of environmental change. In recent years he argued against what he saw as an "enlightenment-centered" approach to such hazards. We cannot, he argued, naively assume that knowledge from the life sciences translate directly into changes in people's actions. Rather we must seek to understand how people's knowledge of the environment relates to their actions (Kalland 2004). Put short, he called for a comparative and empirical study of the dialectic relationship between attitudes and actions in relation to the environment. This seemed to fit well with my interest in the perception of nature, and particularly ideas of what is considered *natural*, through wine. However, with the passing of Professor Kalland, it seems that the comparative aspect of this project might never be fully realized. Another source of inspiration has been a call for discussion, published in the Culture and agriculture- journal of the American anthropological association. In it James McDonald calls for a focus on "local values, systems of knowledge and organizational strategies" in the study of contemporary agriculture in the United States. In addition to the existing agricultural research he calls for anthropologist to "explore the complex ways that people conceptualize, give meaning to and organize around agriculture..." (McDonald 2005). These two approaches together underpin my project.

Kalland thought his project to be realizable within any given situation where people relate to nature. In choosing a field I therefore had to narrow down both scope and focus, and I saw it fit to follow my interest in winemaking. Given my fascination for the way idiosyncrasies in grape growing and winemaking are narrated by growers and interpreted by consumers, this seemed to be an ideal place to study relations between nature and the senses. As biodynamic agriculture exists within the broader trend of organic agriculture, their emphasis on not using pesticides or chemical fertilizers are noted by some to produce cleaner wines, and held by others to create unstable and often undrinkable wines with a very limited shelf life. At the same time, most wines are marketed as quintessentially natural. Starting out, I was

particularly interested in how biodiversity would relate to quality in winemaking. But as fieldwork ran on the drift of perspective that often happen in anthropological research has driven me to focus more on biodynamic agriculture in general and less on the specifics of viticulture and oenology.

Much of the current literature on organic and biodynamic agriculture focuses on the consumption of organic products and mostly how it is related to either health or consumer-identity. Such studies tend to focus on people's perception of what organic or biodynamic produce is (Zucca, Smith, and Mitry 2009) and how it relates to trends in the global food culture (Johnston and Baumann 2007). Furthermore it has also been noted that for a long while, studies of American agriculture in general have been dominated by economic approaches, and that social and cultural dynamics remain largely unexamined (Rogers 1987). I do not deny the necessity of economic and policy-based studies, but to understand the impact of organic and biodynamic farming methods on North American agriculture, we also need to study the context of their production. If consumers use organic food in their self-representation, it seems timely to study the lives and stories of those who grow it. The distance between the consumers understanding of the products, the discursive representation of said products and the actual context of their production, however, is often immense. To support such a claim one need not look further than the growing critical literature on fair trade projects (see Moberg 2010; Phillips 2006). Thus the absence of close ethnographic studies within this field becomes all the more precarious. Asking consumers to describe significant aspects of what organic food "is" reduces the phenomena itself to the USDA description that underlies the study. Essentialising organic agriculture in this way idly passes by the interest of the producers and disregards any potential disagreement amongst farmers and policymakers over how organic, biodynamic, sustainable or green food should be defined. Unfortunately I have found little in the ways of comparative, thick and local ethnography around which to frame this thesis. Therefore it's aims is to help fill this ethnographic void. Another problem indicated by such market-studies of organic produce is that it makes up for its lack in broad marked appeal by having a heavily invested group of consumers (see: Guthman 2004). In such cases, broad marked studies tell us very little about what organic agriculture means to those engaged in it. Inspired by Yanagisako's study on silk-producing family-firms in Italy (Yanagisako 2002), I hold that assuming economical gain in itself to be what motivated people is radically oversimplifying. I take it that even though these farmers are producing a cash-crop that garnish significant return on investment, a purely economic

analysis risk running aground on their criticism of capitalism. Even capitalists, Yanagisako argues, need some motivational force, imbuing their actions with meaning. In the case of this thesis, the motivational force in focus is a neo-pagan manifestation of the idea that nature is somehow intrinsically sacred.

In approaching nature as sacred, the overarching interest of the thesis is how nature spirituality motivates environmentalist modes of interacting with nature. Doing so we turn our eyes to a recent strain in the study of religion. Since Lynn White published his article "The Historical Roots of Our Ecological Crisis" (White 1967) there has been a scramble to make connections between religion and environmentalism, and to find inspiration on how to combat man made climate change in religious paradigms (Kalland 2004, 8). This debate has in many cases ended up creating groups of "ecological noble savages" with "indigenous" and "local knowledge" thought to allow them to live in harmony with nature. By choosing to focus on a group striving to live in harmony with nature, my aim is to challenge our notions of "indigenous" and "local knowledge. The knowledge considered here, handed down both in practice and in writing from Steiner, has spread globally but is still sought to manifest with local idiosyncrasies. Empirically this will be explored through ways in which individual farmers search for alternative ways of managing and adapting to nature when the conventional agricultural methods come into conflict with their moral values and ideas about nature. Following this I also draw on Bron Taylor's book Dark Green Religion: Nature Spirituality and the Planetary Future (Taylor 2010). Noting a trend in environmental and conservation-work to lean towards a religious language in their ways of describing nature, he coined the term "Dark green religion" to cover the vide array of worldviews and narratives expressing such sentiments. Taylor briefly touches on Biodynamic agriculture and describes it as a animistic variation of dark green religion (Taylor 2010, 156). His book sweeps widely, and covers a large field. Thus, being more concerned with the history and literature of this dark green religion, it fails to grasp the personal experience of nature in its sacred form.

The purpose of this thesis then, put short, is to explore how religious modes of, and motivations for, engaging with nature in biodynamic agriculture are reinforced through religious and spiritual experiences. To do so, I will approach the ways in which Steiners esoteric science and phenomenological exercises are used in the process of creating new local knowledge and with it, a experience of the sacredness of nature. I do so by observing the

dialectic movement between cosmology on one hand and on the interconnectedness of practice in and perception of the environment on the other.

This project involves both exploring how such cultural imaginings of nature come about through broader cultural impulses such as dark green religion and how these imaginings in turn form meaningful practices through interaction with concrete places. This will be done both by focusing on how biodynamic farmers work with their environment and how they draw on larger discourses in explaining their practices. The point of departure here is that it is not only a rational understanding of the significance of biodiversity for sustainability that motivate specific ways of farming, but also a emotional attachment to the landscape and practices that go into conserving biodiversity. Not only meaning but also emotions fuel actions. Yanagisako bridges this divide using the term sentiments to blur the boundaries between desires, understood as embodied yearnings, and goals, understood as mental constructs, to emphasize their interconnectedness (Yanagisako 2002, 11). Following her lead we might say that a particular cognitive order of nature begins to motivate actions once it gains a significant emotional motivating component. As Roepstorff and Bubandt observes: "once established, particular imaginings of nature become moral realities that affect local practices and identity as well as scientific knowledge practices" (Roepstorff and Bubandt 2003). It is this moral component I will trace in the following thesis. Presupposing, as Christian Smith suggest, that "humans are moral believing animals", this task of stabilizing a particular imagining can be achieved by seeing the narratives people tell about themselves and others as representing a moral universe. He suggests that belief and morality are intimately connected to practice and that "every social order has the sacred at it's core" (Smith 2003, 152), implying by this that there are certain intersubjective norms that shape group identity and make life meaningful. Building on this perspective I will be drawing on Kay Milton's study of emotional attachment to nature in the context of environmentalism. Milton argues for an understanding of environmental commitment that takes the role of emotions seriously. Arguing along the same lines as Yanagisako and Smith, she makes a case for emotional and rationality merging through emotionally involved interest. Like Smith, she finds that this thing at the core of social orders, and people's identities, defined as that which means the most to one, takes the shape of the sacred. (Milton 2002).

Dwelling

Starting out from an interest in wine and the "taste of place" in organic winemaking as it is described by Amy Trubek (Trubek 2008), I have had a firm interest in how humans shape and perceive the world around them. In attempting to understand how people engage with their social and natural environment, I have found much inspiration in the literature inspired by the thinking of Maurice Merleau-Ponty and Martin Heidegger. Tim Ingold, drawing on the work of Martin Heidegger, postulates that we need to study people's engagement with their environment as a process of dwelling. He defines this dwelling perspective as one in which both mental and physical constructions "arise within their involved activity, in the specific relational context of their practical engagement with their surroundings" (Ingold 2000, 186). In other words, both the buildings on the ground and people's ideas of them are mutually depended on the physical and the cognitive realm. Ingold has since moved in the direction of exchanging the concept dwelling for habitation citing problems related to the sedentary connotations related to dwelling (Ingold 2011, 12). However, because the following study is of a fairly sedentary group, I still find dwelling to be a more accurate term to describe and analyze the activities manifested in my material. The purpose of applying such a perspective in this thesis is to investigate the way places are shaped and experienced, and how this dialectic process shape cosmology, identity and group cohesiveness. Focus is also placed on how identity is found in performing tasks such as tilling the soil, and how local specificity is created by closely minding the material world rather than subjugating it, in the words of my informants, to chemically controlled sterility. Significant for this discussion is Ingolds concept of taskscape, defined as both the activities of dwelling in a particular landscape, shaping it through ones skilled practice, and the interactivity of the landscapes ability to act back. In other words the act of weaving human and non human activities in the landscape into its physical form (see Ingold 2000, 199). Building and dwelling is only a part of this perspective. Growth, decay and transformation will take central stage in this thesis as I will investigate how living in a biologically diverse environment shapes understanding of place. As Kull, Kukk and Lotman observe in their article on Wooded meadows in Estonia, "the few examples… of an human influence on nature that have enhanced the species richness of communities, all deserve more detailed study, both form the point of view of ecology and of cultural history" (Kull, Kukk, and Lotman 2003, 77). Within the framework of dark green religion I will argue that biodiversity, being far from a neutral term is intimately connected to a perceived moral order. What makes animistic and religious environmentalist groups such as

these especially interesting pertaining to biological diversity is their tendency to value a diverse range of concepts relating to "learning from nature". This fits well with Milton's observation that the environment, although being "*predominantly* social" is not "*essentially* social" (Milton 2002, 148, italics in the original).

Approaching religion though the immediateness of dwelling also offers some interesting perspectives. Whether or not it is fruitful to approach all forms of environmentalism as "religious" can be contested, but following Smith's proposition, they are all prone to have the sacredness of nature at its core. As such, the conduciveness of this approach relies largely on the applied definition of religion. Like Taylor I will argue little is gained, in this context by choosing to narrow a definition of religion. Although Taylor opts for a almost totally open definition he seems to lean towards one inspired by Clifford Geertz in focusing mostly on religion as a system of motivating and meaningful symbols (Geertz 1973, 90). However, this definition fails to sufficiently grasp the experience-based approach I intend to take. Overly focused on the "webs of significance" Geertz's definition fails to take into account experiences that are go beyond a rituals intellectual meaning. Given the value placed on such direct experiences amongst the participants in the study the following thesis intends to interrogate the sensory experiences of the sacredness of nature. This thesis will investigate how one can experience and interact with forces outside the realm of human perception by drawing upon Susan Greenwoods recent work on the experience of magic (Greenwood 2009). In order to move beyond the dichotomy of magic either being prior or inferior to science, she seeks to move beyond structuralist analysis of magic arguing that a participatory approach to magic is necessary to understand how it figures into people's immediate experience of the world. This will be discussed further below. For now, let us turn to the practicalities of fieldwork.

Participating

My emphasis on taking an experience-near approach to nature spirituality necessitated an experience-near fieldwork. Thus, from day one, doing a participatory fieldwork was my intention, and finding a place where this could be achieved would be essential for securing thick enough data. Towards the end of the BDANC-seminar in January, I informed John Grata, the man in charge of the biodynamic preparations and animal husbandry on the Grata ranch, of my project and asked for permission to stay with him, for a limited time at first. To

this he kindly agreed. On the day after the seminar, John picked me up at the vinery in the golf cart he used to get around the ranch and immediate made it clear that if I were to stay he would put me to work. Every day for the next couple of weeks we would get up before dawn, eat breakfast and do chores on the ranch. I stayed with him and his family for the first two weeks of my fieldwork. As they had a limited amount of vacant rooms in their house, and since they already had a pair of apprentices living there, I eventually moved out. I was then moved down to the vinery, about a five minute walk, and got a room in "The Big House"; An old barn refashioned into a catering kitchen and guesthouse. Here I stayed for the rest of my fieldwork, living with a few other tenants and the grandmother of the Grata family, Peggy. After this relocation I would still frequent John's house, working with him in the garden, taking meals there and attending a weekly sing-along choir. In addition to working with John I also participated in other areas of work on the ranch, combining work in the fields with work in the wine cellar and participation in occasional meetings around the office.

Staying at the Grata Family Vineyard allowed for ample access to the everyday life on the farm. It both allowed and demanded me to participation in work done on the farm, in the garden and in the home. This fitted well with my overall plan on working as a farmhand or apprentice in the field, both to observe biodynamic agriculture as my informants practiced it, and to get first hand experience. When studying an agricultural practice, it seems the best way of doing fieldwork is to literally work in the field as much as possible. First of all, little to nothing would happen around the house during the day, except during the irregular mealtimes. Secondly, given that my intention was to get a firm understanding of the everyday application of biodynamic methodology, the day-to-day labor of planting, pruning and plowing, as well as tending to the animals and doing upkeep around the ranch, was essential to my understanding. Equally interesting was the movement of people and animals around the landscape and the social activities in and around their homes.

Throughout my time with the Grata family, several apprentices and Wwoofers, passed through the ranch. Wwoof is a commonly used acronym for *World Wide Opportunities on Organic Farms*, an organization that works as a middleman for farms that wish to take on apprentices and young people seeking to learn about agriculture. Among these young people, many expressed a wish to "get back to nature" in one way or another. Although I never formalized a wwoofing-position I attempted to emulate my position in the field on theirs, emphasizing my willingness to learn trough practice. In the social setting of fieldwork, you

are not only trying to understand the "natives' point of view". Your informants are also constantly making assumptions about you as fieldworker. The presence of woofers, apprentices and other young people, in search of knowledge about sustainable ways of living, was in itself an interesting phenomenon worth further study. However, they were also influential on my identity as a researcher. Being a young man, capable of doing at least simple tasks around the ranch, made entering into such a community easy. Given the fairly even distribution of men and women among the wwoofers and apprentices I came in contact with it seems that gender was not a quality on which apprentices was chosen. More significant than gender was attitude.

Among these young people, many expressed a wish to "get back to nature" in one way or another. It has been observed that most roles available to the ethnographer have some apprentice-like features (Stewart 1998, 24). On presenting my project, and myself, I emphasized the similarities of the anthropological approach to fieldwork and what I had learned about biodynamic agriculture from readings some of Steiner's work while preparing for fieldwork. In one of his lectures, while talking about meditation, Steiner says: "If you knock up against something with your skull – if you knock against a table for example – you will only be conscious of your own pain. If, however, you rub against it gently, you will be conscious of the surface of the table." (Steiner 2004, 51). When asked to describe the purpose of my study, I would go on to say that this is also how you do anthropology. You try to put your hand softly on the world to become conscious of it, not just your own preconceptions of what you are studying. This allowed me to take up a position as a fellow apprentice in the quest to understand how biodynamic agriculture works. The following chapters will to a certain degree be structured around my attempt to gain such an embodied understanding of biodynamic agriculture by, figuratively, putting my hand softly of the subject at hand and trying to see what I could find. As a result, the combination of my connection to academia and this approach, both John and his son Thomas regularly described my process of understanding biodynamic agriculture as similar to their own quest for understanding.

Working with the farmers allowed me ample time each day to observe the activities around the farm and engage in conversation, both idle and focused on the biodynamic method. Over the course of six months I found myself engaged in many a philosophical lesson on alchemy, agriculture or the future of food-safety. Taking such an active role in the field left little time or need for structured interviews. Only at the end of my stay did I do a round of life story

interviews with the people I had spent the most time with. In an early stage of fieldwork I befriended Ken Boek, an old friend of the Grata family. I was introduced to him as he was said to "know everybody around here" and it certainly seems he did. Both as a friend, than as a gatekeeper he took me to meet other farmers he knew and would jokingly point out frogs swimming in a swimming pool, stating: "this is biodynamic". Not a significant source in this thesis, Ken still deserves mention for showing me around and for helping me get a broader view of California and it's people. . After two months of fieldwork, Ken borrowed me his truck and I went on a tour, visiting seven other biodynamic vineyards in the area, doing interviews and wine-tastings. The purpose of these visits was never to get thick comparative data. Rather it was a way to "seek out diversity" (see Barth 1999) and to observe some of the variety of agricultural approaches and ideas within the region.For this reason, these vineyards figure only passingly in the following thesis. A more significant part of my of-farm activities was going to seminars and workshops on different aspects of biodynamics with John. These were occasions to get other perspectives on biodynamic practices, witness how knowledge was developed and see John in interaction with other, likeminded people. Much of our time I worked with him it would only be John and me so these settings offered invaluable insights. They served both as ways of understanding the theoretical aspects of biodynamic agriculture, and as a way of seeing social interactions between larger groups of biodynamic farmers.

Doing sensory ethnography

My emphasis on the experience of spirituality furthered the significance of sensory engagement with the environment during fieldwork. As far as gathering data for this sort of anthropological research goes, participant observation already provides much of the needed tools. Since participant observation was adopted as the modus operandi of ethnographic research, the anthropologist has always been engaged in the sensuous world of his informants. The long-term fieldworker ends up living in the "sensory rhythms and material practices" of their environment (Pink 2009, 66). However, these sensory aspects have not been afforded enough attention in the analysis of fieldwork data. Judith Okely, in her critique of the disciplines tendency for holding a bias towards vision, referred to as *visualism,* makes a case for an anthropology seeking more than a detached and omniscient gaze. Such a gaze she traces back to Malinowski's early work. Okely argues that Malinowski's description of arriving on the Trobriand Island draws on the shared cultural knowledge of the readers, rather than conveying the view of the people who dwell in that landscape (Okely 2001, 101). Rather

than seeking a detached, panoptic view from above, the anthropologist must seek out a way of looking similar to that of those he studies, commonly referred to as the native's point of view that Malinowski himself insisted upon (Malinowski 1935, 139). In the case of this fieldwork this involved paying attention to bodily practices and participating in them. For me, listening to how various informants talked about and how they reacted to my own ineptness at performing tasks in the field gave relevant clues. Participating in meals and helping with harvesting vegetables, raking beds and covering up compost piles. The occasional winetasting also entered into this part of my research, although the results of which are not elaborated upon in any great extent here. Pink observes that it is difficult to get good data on sensuous relations from interviews, as people often are not interested in reflecting on their sensory experiences and their relations to other phenomena (Pink 2009, 87). Although I did not carry out any structural interviews, I draw heavily on conversations and interaction-data in my interpretation of sensuous phenomena.

As such, I will attempt to elucidate not only the sensory aspects of the environment, but also how it might be perceived, and how perception relates to intersubjective phenomena such as identity, social cohesiveness and experience of place. This approach requires an analytic perspective on place. Following Edward Casey's observations on the primacy of experience in the understanding of places, I take that concepts of space and time are categories shaped through interaction with distinct places (Casey 1996, 43). It is within such distinct places that building and dwelling occur. In applying a dwelling perspective, and focusing on sensory experience the religious and esoteric aspects of biodynamic agriculture presented some unique challenges. In a world, animated by life forces and energies, where the furthest stars influence actions, how can a sensory approach be made to work? In doing so I have drawn inspiration from Willerslev's critique of the way anthropology has treated animism by adding a "as if" to their descriptions of such alternative lifeworlds. He argues that if anthropology is to firmly grasp the social significance of such phenomena, we must approach animism as it manifest in the phenomenal world. One must attempt to understand how meaning is inherent in the relational context of people's direct perceptual engagement with the world, whether with the mundane or the transcendental (Willerslev 2007, 20). Ingold similarly raises the criticism that animism, rather than being a "system of beliefs that imputes life and spirit to things that are truly inert" should rather be understood as a way of being in the world (Ingold 2011, 67).

To attempt to get any understanding of how such aspects take part in shaping Californian biodynamic agriculturalists attention (see Ingold 2000, 190), I participated in seminars and exercises meant to help the participants sense higher worlds and attempted to apply what was taught to my own experiences around the farm. Jone Salomonsen, drawing on her work with feminist neo-pagans in San Francisco observes that much of the literature on such phenomena misses the point entirely, by not being able to elicit why such movements have the emotional appeal that they do. To remedy this she argues we must study such phenomena from the inside (Salomonsen 2004, 46). To her, this entails rethinking the insider/outsider positioning of classical anthropology and daring to use oneself as informant. In my case, this involved approaching the filed as an apprentice. The strategy in this thesis is to approach my own sensory experiences as subjectively situated, and attempt to move from that position towards an understanding of my informant's sensory experience. As Sarah Pink argues, the fact that ethnographic research is subjective and therefore requires the researcher to situate him or herself in the text is a widely accepted paradigm. When doing sensory ethnography, it follows from this that the phenomena she terms sensory subjectivity also requires situating (Pink 2009, 53). In doing so, I build my intention of learning through apprenticeship notably on the work of two authors. First I build on Ingold's assertion that skill and perception is intimately related, and that one by fostering skills may also foster perception (Ingold 2000, 190). Secondly I draw inspiration from Paul Stoller. His description of apprenticeship as a Songhay sorcerer, by situating his sensory experience within the local frame of reference he both provided an insightful description of sorcery in Songhay and highlighted a complex cultural dynamics of rivalries. For him, a significant part of doing a sensory ethnography as a sorcerers apprentice was to "learn to hear the drums" (Stoller 1989). Consequently, I take that engaging in other people's life-world with your senses to as large a degree as possible is necessary to fully understand the social complexity of issues such as biodiversity and religious experience. Here I follow Kalland in assuming that our relation to our ecosystem is dialectical and that the only way to study such a relation is to study how perceptions and practices influence each other (Kalland 2004).

Maintain such closeness to my material has also stood as a moral imperative. I made my entrance into the field of biodynamic agriculture saying that I wanted to understand biodynamic agriculture, and the people who engage inn it, through practice. As biodynamic agriculture is often presented as pseudoscientific or downright unscientific, it is my intention in this thesis to draw on my experience of this practice to elucidate how its efficacy is

interpreted. To present these data in any other way would be to break the categorical imperative of never using people as means to and end, but always as means in them selves. This is why I have not gone to any further lengths as to generalize my material so as to render my informants anonymous. Although all my informants in this study have been given pseudonyms, the personas presented stand one to one with the once encountered. This has been done in agreement with the people on the ranch, and after ascertaining that none of the themes discussed in this thesis can have serious implications for my informants.

The road ahead

With these preliminary proceedings out of the way, it is time to turn to the task at hand. The following chapters move procedurally towards an understanding of the way biodynamic agriculture is actualized on the North coast of California. Chapter 2 gives an outline of the cultural and historical context of both organic and biodynamic agriculture in California. Briefly sketching a map of some of the salient subjects within this field, it focuses on the history and narrative of organic and biodynamic agriculture and the way it inspires people who break away from the mainstream. Chapter 3 starts the journey into the concrete lifeworld of biodynamic farmers proper. Taking as its point of departure, the task of learning the basics of biodynamic agriculture and the agrarian ideals outlined in chapter 2, this chapter traces the lines between skilled practice and identity in an alternative spiritual practice. Chapter 4 takes the materiality of growth and decay as its focal point. With biodiversity playing such a large role in biodynamic agriculture it is pertinent to asks what is at stake when biodiversity is discussed. It is argued that biodiversity, if approached as a historical discourse has an explicit moral aspect and that we, by investigating this moral aspect can come to see how nature is perceived. Chapter 5 invigorates the concept of garden magic as it attempts to draw the treads of the previous chapters together. It explores how the biodynamic preparations both control uncertainty and aid in eliciting an esoteric landscape, invisible to the naked eye. Chapter 6 brings all these strands back towards the thesis question of how all these practices, and their relation to the works of Rudolph Steiner, and other trusted sources, go about creating a new local knowledge. A local knowledge for our time; One which is both scientific and magical; Rational and emotional.

2

From golden hills to green fields

Approaching the organic and biodynamic agriculture of northern California

> "California is a place in which a boom mentality and a sense of Chekhovian loss meet in uneasy suspension; in which the mind is troubled by some buried but ineradicable suspicion that things better work here, because here, beneath the immense bleached sky is where we run out of continent."
> - Joan Didion

"Over there lives one of the farmers who was in the charge against the Gratas during the Measure H campaign[3]." My friend Ken pointed out a farm on my side of the road. We were driving out of Ukiah, towards Hopland one Saturday morning. "He believes that since we haven't proven that GMOs are a bad thing yet, that we should not make them illegal in case we suddenly need them." Lamenting the situation of the organic farmer he argued "We shouldn't have to defend why we are organic. It´s the other guys who should have to defend their game". Ken went on to talk about how profound the publication of the first issues of "Prevention magazine" and "Mother Nature News", both countercultural magazines dedicated to sustainable living and organic agriculture had been, back in the 1960s. He talked about lectures and meetings where the fault of conventional agriculture, and the food it produces was proven in vivid detail. He spoke of a lecturer packing a whole loaf of "Wonder bread" into a ball that could fit in the palm of his hand to prove that it was hardly anything but air and wheat. Ken grew quiet as I observed the farm pass by our window. "It's kind of scary to think…" he picked up, "This whole thing called organic agriculture. It could go away overnight. After all, it's just an idea somebody had".

As we will see in this chapter, organic agriculture is far from just one, fixed, idea. It is a broad countercultural movement with a diversity of influential thinkers. In accounts of the early days of environmentalism and nature-spirituality in the post-settlement US it's beginning is commonly related to the publication of Henry David Thoreau's *Walden* in 1854 (see Gatta 2004; Taylor 2010, 33). After this, a steady group of people has dropped out of the North American mainstream in the favor of the diverse ways of "natural living". Public characters

like Aldo Leopold and Wendell Berry, to mention only two, have developed these thoughts further. Another influence was the work of Jamas Fenimore Cooper, significant both by expressing reverence for nature and by attaching this reverence to Native American lifeway's; Ones he claimed to be both embedded in and dependent on nature (Taylor 2010, 48). Rudolph Steiner and his biodynamic agriculture is only a small part of this field that has bloomed in the last few decades. In order to understand how life on the ground comes to be experienced, a certain amount of knowledge about this context is necessary.

Having studied one farm that, from the outset, was said not to be representative of how American agricultural is normally organized, how can the findings of this study be generalized? Due to the nature of anthropological fieldwork, observing the scientific standards of representatively is commonly regarded as impossible. Rather, Alex Steward suggest we should strive for verisimilitude or "accurateness of description" (Stewart 1998, 15). If verisimilitude is our goal however, this verisimilitude, I posit, can only be achieved if the description is positioned within a larger context. Although the field of organic agriculture is contested, fraught with contradicting interpretations and motivations, it still exists, for the most part, in opposition to conventional agriculture. This chapter seeks, if not to sort out the mess of contesting definitions and interests within the large field of organic agriculture, then at least to clarify a few emotionally significant themes and position for my field of study within this contested terrain. By doing so I will outline the ways in which organic and biodynamic agriculture has come to mark a moral alternative to conventional agriculture. As Smith observes "social orders ultimately are held together and set in motion by particular ideas and ideals about themselves that compromise their collective identities" (Smith 2003, 76). To throw light on these ideas I will begin by rendering a historical and agricultural context around the study. In doing so I draw heavily on Julie Guthman's *Agrarian dreams: The Paradox of Organic Farming in California* (Guthman 2004), one of the most comprehensive and critical inquires into both the scale and ideological underpinning of organic and biodynamic agriculture in California to come forth in recent years.

The lay of the land

California is currently the largest single food-producing state in the United States. Its inhabitants would often claim that California, if it were a separate country would be one of the world's largest food-economies. It used to be the worlds sixth largest economy altogether, but has in recent years fallen to number eight on the list (EconPost 2011). Californian

agricultural success is mostly because of the central valley, a massive inland valley with climate and soil making it nearly ideal for agriculture. The great central valley is a complex and diverse region about 100 kilometers wide, and spanning nearly 800 kilometers from its northern point in Redding to it southern tip in Bakersfield. Producing approximately 8 percent of the agricultural produce in the US within 1 percent of it's landmass, the cultivation in the valley relies heavily on irrigation and was therefore developed fairly recently (Reilly 2008). Fueled by the Gold rush of the mid 19th century, California agriculture developed with money from the boomtowns to feed their miners. Since then, agriculture has expanded exponentially. Guthman divides the three primary forces in the modernization of California's agriculture into intensification, appropriation and valorization. These in turn stand for the increase in productivity of a field, the growth of the processing industry surrounding agricultural products and finding ways of enhancing their value through marketing (Guthman 2004, 65). Despite the high prices on land, California is the home of the nation's largest number of organic farms. Producing 90 percent of the organic supply of 14 different crops in the US, this production is centered notably around fruits and nuts, with lettuce and grapes being the highest revenue crops (Klonsky 2010). Agriculture in California, Guthman remarks was capitalist from the get-go, so there was no class of small landholders to buy out. This leads her to remark that even the organic industry in California is permeated by the concepts of intensification, appropriation and valorization. However, I will argue that this is a fault of her scope. Subcultures of the organic movement have developed along quite different lines, ones focused on a morality of agrarianism.

The majority of the fieldwork for this thesis was carried out in Mendocino County in the North Coast region: consisting of Marin, Napa, Sonoma and Mendocino County. This region was among the first in California to come into agricultural production after settled. Before western settlement, mostly Pomo and Miwok tribes inhabited the region subsisting as hunters and gatherers (Brown 1969). After being settled and converted to agricultural land the valley floor used to hold orchards and fields of hops and grain in addition to grapes. The county used

Plate 1: Mendocino County. California

to be the center of a large economy based around timber-production. Cutting down the old redwood forests used to be such a lucrative business, that there is hardly any of the old growth redwood left, outside of state parks. Mendocino has a desert-like climate where most of the year's rainfall occurs between December and the end of May and the land dries out in summer. The nights are cold in the winter with temperatures often falling below zero degrees Celsius. As the days grow longer, the nights grow less frigid, but protecting the budding grapes from freezing during the early spring is an essential aspect of securing a good harvest. Once summer sets inn, the temperatures by day approaches 40 degrees Celsius. As the days grow warmer, the land dries out, and the heat of the day is released into the atmosphere rapidly as the sun goes down.

This daily cycle of warm days and cold nights is integral to making Mendocino a region suitable for growing grapes. Now, due largely to the demand for wine, the price of land in the costal valleys have grown so high that grape growing has taken over as the primary form of agriculture due to it's value-added potential. Numbers from the Mendocino department of agriculture show that of the total of 18,636 bearing acres in the county, 16,657 of these are bearing wine grapes and the remaining bear mostly apples, pears and walnuts. Out of these 16,657 acreages of wine grape, a total of 3,923 acres are certified organic, biodynamic or both. This puts Mendocino on the forefront of the spread of organic agriculture and it is commonly referred to as "Americas greenest wine-region". Despite intensification and changing agricultural paradigms, some fragments remains of the old landscape. A few of the majestic valley oaks that one provided the Ukiah valley with its canopy space and supply of acorns remain. Strewn beneath them, remains of the Pomo dwellings can be found. The rain often washes out arrowheads, made from obsidian originally found in the neighboring Lake county, after the fields have been tilled. These remnants along with a ethnographic museum based around the collection of the paintings by Grace Carpenter Hudson and her husband the amateur ethnologist John Wilz Napier Hudson, led to the life of the Pomo Indians being a common point of reference when talking about the history of the region. They also serve as a constant reminder of the landscape that has been lost, and what might once be regained.

Being only a few hours drive from San Francisco, a large and high price marked of consumer goods, is referred to as an "Urbane countryside". This is enhanced by the historical tendency for the Bay Area to be supportive of countercultural movements (Guthman 2004, 93). This proximity to a willing marked has enabled a growing industry of artisan foods, bringing forth ventures into commodities like free range chickens and organic milk in addition to organic and biodynamic wine (Guthman 2004, 106). Mendocino also houses a number of farms based around "Community supported agriculture" (CSA) and smaller market gardens and has spouted numerous farmers marked. Guthmans study shows the typical farmer in the region to be an urban back-to-the-lander (Guthman 2004, 106). Manny of these came from the urban regions with no formal knowledge of agriculture, simply with an exuberant love for nature and a desire to farm their own food. In the case of Mendocino County, this has lead to a broad sense of local solidarity. This communality has sparked a tradition for localism and regionalism. Thomas Lyson's study on Civic Agriculture is based on research done in the Mendocino area (Lyson 2005). Civic agriculture, as he describes it is agriculture that aims to

embed local agricultural production firmly in the community, thus opposing the current trend toward industrialization and intensification of North American agriculture. The current literature on organic agriculture however expresses a similar concern to that of my friend Ken. Heather Rogers observes that "If alternative farmers are too beaten down by the lack of resources for cultivation and distribution, inappropriate food safety rules, insurmountable debt, and inadequate pay…" (Rogers 2010, 42) then organic agriculture might cease to exist, no matter how much the consumers want the products. In the discursive space of American food production, organic agriculture, although competing on the same market as conventional agriculture is working hard on distinguishing itself. Still for all but the larges organic estates even the increase in product price fails to put them at an advantage over the conventional agricultural sector due to their lower yield per acre. Thus it looks like something else than economic gain seems to motivate the operators of small-scale organic farms.

As the long term results of the intensification of agricultural practices that followed the industrial revolution became known, a steady stream of writers urged a return to less intrusive forms of agriculture. One famous publication that brought the consequences of agricultural pesticides to public attention was Rachel Carsons *The Silent Spring* (Taylor 2010, 13). In it, Carson describes the death of animal life due to the aerial spraying of the pesticide DDT. The book, by becoming widely popular, facilitated the subsequent outlawing of DDT. In this cultural atmosphere organic agriculture grew popular as a response to the results of conventional agriculture. Result such as soil degradation and overuse of pesticides and factory produced fertilizers. Wendel Berry, writes of the development of large farming operations as the "unsettling of America", in her influential book by the same name (Berry 1977). Published in 1977, just before the boom of organic agriculture in the 1980s, Berry described a small group of organic farmers as the only survivors of a true American agriculture. She notes both on the ingenuity of their use of crop rotation and on their use of organic fertilizers, observing how this benefits the soil biology and fertility of their farms. Moreover she links these practices explicitly to moral virtues, noting that she was often impressed by "the excellence of their character and the excellence of their farms" (Berry 1977, 193). By doing so, she both helps constitute a narrative connecting the act of farming right and living right. In formulating this relation she also becomes a narrative figure herself. As one of the key intellectuals behind the organic movement she is often referred to as a saint of dark green religion, and her writings are often referred to as sacred (Taylor 2010, 57). Still, many of those who came to shape the back to the land movement had no direct knowledge of farming.

There was therefore an enormous thirst for knowledge. In later years, The University of California Davis with its research-focus on organic agriculture, the "John Muir Institute of the Environment" and its numerous Agricultural Extension offices has taken up facilitate such knowledge. Before that was established, a intellectual stream from Europe quenched part of this thirst.

Koberwitz – California

Biodynamic agriculture, although often considered a product of Rudolph Steiners thinking is, like we have seen in the case of organic agriculture, far from the work of one man. It has spread and developed into the global movement it is today by the hands of generations of farmers. Still Steiner occupies a space as a mythical figure at the source of this movement. To this day the most vivid manifestations of Steiner's thinking lives on through the institutions he put into motion (Bergesen 2000). Best known among these are the Waldorph Schools, known in Europe as the Steiner Schools and the Camp Hill communities. These communities are life-sharing villages and schools for children and adults with learning disabilities, mental health problems and other special needs. The third of these institutions is what came to be known as biodynamic agriculture.

At the end of his life, Steiner was approached by some of his students and asked to help them combat the decline in virility and resilience of their crops, seen to be a result of the industrial revolution. Holding a series of lectures in Koberwitz in 1924, Steiner, an established philosopher and anthroposophist at the time, outlined how his thinking could be applied to agriculture. The remedy outlined in the course was a new way of thinking about the relationship between the material substances of nature and what he termed the *formative forces*, the forces that shape every living thing. On a metaphysical plane, Steiner's cosmology can be seen as deeply animistic, both receiving notions of universal truth from things in nature, and outlining ways in which to interact with the spirit world. What therefore makes these lectures so interesting is that they had a primarily practical approach to such matters of the spirit. With the goal of reinvigorating the life forces in nature, Steiner gave specific instructions on how to treat soil, manure and compost. Lastly he prescribed the production and use of the biodynamic compost preparations (see Steiner 2004).

Steiner's course inspired a handful of farmers to start with what in closed circles first became known as anthroposophist agriculture. As early as in 1928, biodynamic produce was being farmed in Europe. This produce was labeled with the name of the Greek goddess of agriculture, Demeter. Demeter Inc. has since grown into a worldwide certification-system for biodynamic produce and has local branches in 45 countries around the world. In 1929, these lectures were transcribed and today, in their written form, known as the "Agriculture course" make up the core text of biodynamic agriculture (Paull 2011). With the publication of the agricultural course, and a few practical guides like it, biodynamic farming was established and quickly spread throughout Europe. In the 1958 foreword to the Agricultural course, Ehrenfried Pfeiffer quotes Steiner who shortly after holding the lectures advocated bringing this knowledge to the world. "The most important thing is to make the benefits of our agricultural preparations available to the larges possible areas over the entire earth, so that the earth may be healed and the nutritive quality of it's produce improved in every respect" (Pfeiffer 2004).

Like organic agriculture it would take some time before biodynamic agriculture gained momentum in the US. Guthmans study mainly traces the growth of the organic sector after the 1980s, but acknowledges a small constellation of registered organic growers prior to this. Her numbers show the existence of 56 certified organic growers in California as early as 1972. How many of these were biodynamic is not know. The history of biodynamic agriculture in North America dates back beyond this, but remains fairly unreported and a more comprehensive historical study has yet to be forthcoming. Biodynamic agriculture first set permanent roots in the United States in the late 1930s when Ehrenfried Pfeiffer, who worked with Steiner from an age of 21 until Steiner's death six years later (Paull 2011, 38), brought the practice with him from Europe started the "North American Bio-Dynamic Farming and Gardening Association" in 1938 and the Kimberton Farm School, credited as the first school of organic agriculture in the US (Lorand 2006). It spread further with the establishment of the Josephine Porter Institute, undertaking to secure the supply of quality biodynamic preparations, in 1954.

A further embedding of biodynamic agriculture in concrete practices came with the institutionalization of the Demeter certification. The US branch of Demeter was founded in 1985, 12 years after the establishment of California Certified Organic Farmers (CCOF), the first certification agency for organic agriculture in 1973. Demeter USA Inc. holds an inclusive

copyright on the term biodynamic©. This means that Demeter USA Inc. has the right to bestow the use of the term biodynamic© on farmers who adhere to their definition of how biodynamic agriculture is to be performed. These requirements are formalized in the "Demeter biodynamic© farm standard" (Demeter Association USA 2010), commonly referred to only as the *farm standard*. Certifying for this standard requires the farm to already meet the requirements of the National Organic Program (NOP) and then undergo a two year transition period in which the farmer together with Demeter, and often a hired consultant, start to transition the farm to follow the biodynamic approach. Then, after certification is granted, Demeter requires a yearly progress-plan and performs yearly inspections.

According to the *farm standard*, the farm is to be considered an individual productive unit. This unity was referred to by Steiner as the *farm organism,* and was meant to encourage farmers to see the farm as a closed nutrient-system, not needing external sources of fertility. As such the certification stipulates that one cannot certify only a part of a farm; the whole estate must be certified. Setting of a minimum of 10% of the estate as a biodiversity reserve is a mandatory part of certification. "This preserves wildlife diversity, endangered species habitat, and provides an overall reserve of diverse life forms to inoculate and inhabit the farm organism." (Demeter Association USA 2010, 9). As no foreign fertilizers should be required in the run of the farm, nutrition should be produced within the farm organism. A common way to do so is through composting and animal husbandry. Keeping domestic animals to provide manure and diversify production is strongly suggested in the farm standard, but not mandatory. Rather, it states, "the grower should strive to have a mixed livestock population to help establish and sustain a self-sufficient system of fertility." (Demeter Association USA 2010, 14). The amount of livestock thus varied greatly from farm to farm. Certification also requires that the biodynamic preparations have been applied for at least 36 months. Described, as a "distinguishing feature of Biodynamic agriculture" there are nine such preparations. Made from herbs, mineral substances and animal manures they are utilized in field sprays and compost inoculants, applied in minute doses, similar to the way homeopathic medicine is used by humans (Demeter Association USA 2010, 16). Most of these aspects of biodynamic agriculture will be covered extensively in the following discussions.

Although remaining outside the mainstream of Dark green religion, Steiner's thinking has been able to influence action, seemingly by being so practically oriented. Aimed from the beginning at addressing the problems caused by industrialization of agriculture, biodynamic

agriculture is frequently addressed as the original form, or "gold standard", of organic agriculture by its practitioners. Before there was a political and environmental interest in preserving, or even a term for, biological diversity Steiner advised farmers to increase the diversity of their farms. This is not lost on the farmers in this study. A further exploration of this history and academic work of Rudolph Steiner is vastly outside the scope of this thesis. Besides, such knowledge cannot be expected by all the participants in this study. Some might know more than others, and most know only enough to fuel their interest. As Smith observes:

> *"It is not necessary for individuals to be fully aware of or articulate about the details or variants of the historical narratives that shape their lives or to represent in their particular experience every element of the narrative story line. Most people relate to their narratives not as literary critics or analytical philosophers but as believing actors swept up in the movement of grand historical drama." (Smith 2003, 72).*

This historical drama was clear to most I encountered, although the details varied. The depletion of the fields and the overuse of pesticides and fertilizers were seen as both an ecological and a cultural catastrophe. The threat of industrialized agriculture seemed to most uniquely real when faced with endless fields of genetically modified corn and food that do not even decompose. The alternative, shaping a new agriculture from the ruins of the old, seemed unavoidable. Andrew, one of the Grata brothers, would regularly say, "The thing to know about agriculture is that it's in its infancy". Enacting Steiner's thinking was seen as one of many ways of approaching agriculture in a more sustainable way.

As anthropologists steadily have become aware over the years, finding a culture that is completely separate from any other is impossible, even in the jungles of papa New Guinea. To expect to find such a group in valleys of northern America is of course utterly foolish. Also, Jon Bloch observed in a study from 1998 that the so-called "alternative" or "countercultural" spiritual movements that relate to environmentalism are largely non-dogmatic. "By not aligning themselves", he observes, "with tightly-organized spiritual groups they enact their protest against dogma". At the same time their ideology manifests a critique of the mainstream dogmatism and creates room for a performativity that can create group cohesiveness on this same basis (Bloch 1998). This observation is supported, both by other studies within the field of alternative spirituality (Albanese 1990; Gatta 2004), and by my own observations in California. This pragmatism has lead me to disregard, for the large part, written sources on Steiner's thinking in favor of focusing on the way practices are embedded

in experience-based interaction with the environment. In doing so, I follow Willerslev's opposition to the concept of "world views". In the context of indigenous spiritual knowledge, he observes that any mapping of a world entails viewing it as "integrated and consistent". Thus such mappings become a practice in analytical abstraction (Willerslev 2007, 157). When it comes to a phenomenon such as biodynamic agriculture, the context is different but the result appears to be the same. Going further than I already have in outlining the cosmology of biodynamic agriculture would either involve an analytical abstraction of the contested knowledge people use to guide their decisions, or the pure recounting of the literature they refer to. In both cases it would provide us with no new understanding of how these texts are understood and operationalized by living individuals. In practice, knowledge and inspirations, metaphors and enchantments flow back and forth between spheres of knowledge, mostly for free or a small fee. Homesteading, permaculture, biodynamic agriculture and several other major streams of countercultural practices all flow together in the aisles of the natural food coops and merge in earth day celebrations. All these impulses, however, seem to aid in the same project of creating a local culture of agriculture in opposition to conventional agriculture. It is therefore time to turn our focus towards a concrete case of such local culture, the Grata ranch.

The Grata ranch and it's dwellers

The Grata family first settled in the Sequoia valley in the early 1960s, after the parents, Peggy and Donovan Grata, born on the east coast and sharing a love of nature, moved to the west coast. They secured an estate of about 100 acres of land near the watershed of one of the large rivers that feeds farmlands of Mendocino and Sonoma Counties before it spills into the Pacific Ocean. Peggy now the mother of twelve grown children and grandmother of dozens more of the family told stories of how she and her husband moved to give their children a chance to grow up close to nature. Many stories can be told about how the Grata came to live the way they do and it is never easy to find the perfect place to start recounting such a narrative. Each choice implies omission. For our current purpose the most salient story is the one that intersects the broader narrative on organics and environmentalism. This particular story surfaces in 1967 when the British born Shakespearian actor Alan Chadwick started a garden club at the University of California in Santa Cruz. He eventually outgrew this garden and established a garden project in Covalo. It is said that the first generation of organic farmers in California had all shaken his hand, or shaken the hand of somebody who had.

Without doubt he had a massive impact on a number of people and is cited to be the first to institutionalize alternative production methods in California in its current state (Guthman 2004, 16). The grata family was one of the groups touched by his words and work. In the late 1970s, Peggy and Donovan's oldest son, Saul met his soon to be wife Elizabeth at Chadwick's garden-project in Covalo. They returned to the Grata ranch, got married, and started their first organic garden along with the rest of the family. Shortly after this they planted their first all organic vineyard. The choice to go organic was made, in part, because the ranch, at that time was so small that the family would be living right next to the fields. Not wanting to live in a haze of chemicals or have their children and siblings play in polluted fields, the elder siblings opted to apply their knowledge of organic agriculture from day one. In the first few years, they sold the grapes to other vintners in the area. Then In 1980 their regular buyer could not buy their grapes. Instead of letting the harvest go to waste, they made their first vintage. Working for one of their neighbors, the Fetzer family John Grata was introduced to biodynamic agriculture. While Chadwick had taught his own form of French intensive biodynamics, the Grata's now years later came into direct contact with the work of Rudolph Steiner. John and his son Thomas started attending seminars and in 1994, they became the first vineyard to be certified biodynamic, taking part in developing the certification process.

Over the years the family has bought parts of the neighboring estates and woodlands. And spread out over the valley floor. The size of the home ranch is now closer to 1000 acres. About 90 of these acres are planted with certified biodynamic grapevines and the rest consist of some dwellings and orchards, but mostly of hills, forest and rivers. In addition the 90 acres of grapes the family owned a number of satellite fields both in sequoia valley and in the neighboring valleys. All the vines on the home ranch were wire-trained to ease harvesting by allowing the use of mechanized harvesters. Metal stakes and wires suspend the vines, trained to a T-shape in rows about a meter apart. In earlier years, when the winery was much smaller, the family members did all the work themselves and by hand. Over the years the vineyards have grown so large that the Grata's have had to employ work-crews to do much of the manual labour such as pruning and tying of the grapes, common practice among vineyards in the region. During fieldwork the hired work-crew[4] consisted of six Mexican workers. The crew was organized an run by Phillip, the vineyard manager and the husband of one of Saul and Elizabeth's daughters, a trained farm manager with a masters degree in biodynamic agriculture from New College. However, during harvest or other periods when much work

had to be done, other parts of the family would also help out. Still, John and Andrew would tell stories of the time they had to do most of the manual labour themselves. Such recounting was never free of neither nostalgia nor pride.

Plate 2: John's house in January.

The main compound consists of a few large building notably "The big house", the vinery and a warehouse. The big house, once an old barn, now serves as the home of the grandmother of the family. It also houses a full catering kitchen, guest-rooms where long and short-term renters spend their nights and a large kitchen and gathering room used by the family for a diversity of social functions. The vinery is a bricolage of architectural styles. It is a patchwork of materials from different times and different places. Redwood shingles, overgrown by moss on part of the roof is mixed with tin-plating on the other. Over the years, other buildings have been torn down and the resources used to expand the vinery. In a similar manner, the wine-cellar started out with a few tanks housed in the vinery and has since expanded in the same way as the winery. Most of the tanks are not under ground, as the name vine-cellar would

imply, but rather out in the open. In a sense, the layout of the cellar gives an impression of the farm's incremental growth. Supply and demand has grown side by side, and there has never been enough money to buy sparkling new equipment and house it in a grand new building. All the wine produced on the ranch is stored here in large steel tanks until it is bottled and shipped of. Some tanks are home-welded. Others have been purchased from local dairies that have gone out of business. Still others have been bought second hand from other wineries. The several meters tall tanks are covered in insulated foam to protect the wine in the tanks for fluctuations in temperature. Looking closely, the patterns in the foam turn out to be small holes, pecked out by the acorn woodpeckers to store nuts. The façade of most of the houses on the ranch also holds such winter-stores for the local wildlife. Andrew and his wife Chosovi performed most of the cellar work. Together with Saul and Elizabeth's oldest son Theodore they did the everyday work of blending wines, filtering and bottling.

A gravel-road runs from the vinery and up into the hills and through the forest. It is between these trees most of the dwellings on the ranch are found. All of them scattered out, among the trees, connected by gravel-roads and smaller paths. Hardly any are connected by line of sight. Small gardens, lawns and pastures surround the houses. Apart from that, there is only forest, rivers and ponds. Walking here at night, there are no lights, except the lights form the stars and a few scattered windows to guide your way. Given that almost all these dwellings had private gardens, a significant amount of the ranches productive capacity was consumed on site. From January and throughout my time of staying on the ranch, whenever I ate with John or Thomas they would have a green salad, fresh from the garden outside the house. The care and nurture of these gardens was a large concern for those who took care of them and in return they were a source of both food and pride. In addition to this, John when needed slaughtered cows and goats, the meat of which was consumed by his closest family. While still far from self sufficient, this practice seemed to go a long way in supplying the family. John also explained that he purchased large amounts of cabbage for sauerkraut, and dried food like beans and lentils directly from a number of other nearby organic and biodynamic farms. The remaining of the family's supply of food was purchased from a local all-organic cooperative store in the nearby town of Ukiah. Among the houses situated in this landscape, the place I spent the most time was John's house. John is a man in his early fifties with broad hands, clear eyes and a gentle demeanor. He was around four years old when his parents brought the farm, and has lived on it most his life. He, and his wife Nina lived in a wooden house that John built by himself, just west of the vinery, overlooking a garden, a barn and a

meadow. Right next to this house, his son Thomas lives with his wife Jennifer and son, Horus. Thomas, who is in his late twenties, has inherited his fathers' gentle demeanor and works part time at the winery. Across the garden from the houses stands a small barn for the goats and sheep that John and Thomas tend to. A small orchard with low and well-tended apple trees stretches from the house to the barn. Partly shaded from the heat of the California summer by this orchard lies John's vegetable garden. A number of vegetable beds, approximately one meter wide and several meters long span the garden, with narrow walkways between them. By the barn lie a couple of compost-piles made with goat-manure from the enclosure. This is compost intended for the vegetable-garden. A field stretches from the barn down to the road. Along it, on one side lies a bee-habitat with flowers and herbs that bloom all throughout summer.

As mentioned above, Demeter certification requires that any farm incorporates a certain amount of domestic animals to be certifiably Biodynamic. According to my observations from visiting different biodynamic farms, the degree to which this was followed varies greatly. On one edge of the spectrum you find farms that only have a few animals such as a small flock of hens. Many had a small flock of sheep or goats. The Grata ranch represented the other extreme with the largest number of domestic animals I witnessed on any vineyard. The amount of livestock at the ranch varied as animals were born, bought and slaughtered, but during my time on the ranch they had approximately 6 cows, two horses, around 20 goats, about 15 sheep and two large coops full of hens. In addition to this, almost every household on the ranch had one or two dogs, and some had cats. John tended to the cows, horses and hens and held most of the workload of caring for the animals. Thomas was in charge of caring for the goats, walking and milking them every day and making cheese for distribution among the families living on the ranch. All year around, the roads and fields are frequented by a covey of quails, deer and other animals. Pumas and bears are known to frequent the area, but they are seldom seen close to the dwellings.

We will go further into details about this landscape and the way it is farmed in the following chapters. First it should be noted that the complexity and contradictions endemic to the organic "movement" as Guthman describes could be located, even within the scope of the Grata Ranch management. The entire ranch is certified biodynamic and all those engaged in the productive part of the farm agreed in their disdain for conventional agriculture, but sought solutions in different parts of the alternative corpus. Drawing on as wide a range of

philosophies as Inca, Jewish and Hindu philosophies, as well as theories of systemic acquired resistance in addition to of course, Steiner's thinking, they all address the same phenomena: the practice of sacred agriculture.

Approaching the sacred

A growing number of books can be found on the subjects of the intensification of organic agriculture and the problems related to certification. For the purpose of this thesis, I have intended only to sketch up some of these lines to indicate some of the dynamics of the field surrounding this study and outline how this complexity forms alongside people's life stories. The lack of a common definition of organic, or even biodynamic agriculture should not trouble us, for such a definition would in any case be contingent. Rather I wish to deal with the stories of those living in such uncertainty and the ways they create a coherent experience of their practice. Thus I have aimed to embed one narrative in a larger narrative, by showing how the Grata ranch has grown forth in the context of the back to the land movement, which in turn flows from the larger trend Taylor terms a dark green religion. None of these would exist in their current shape however without the rolling green hills of California. What I have wanted to show here is how the Grata ranch has grown and developed within this broader countercultural trend of organic agriculture. It is also to show that it is not a representative case for all organic farms. Rather it is an example of how the framework of organic agriculture helps shape significant moods and motivations in people's lives, and how they in turn embed these in places.

Although all the constituents of the organic movement might not move in the same direction, there certainly is an overarching narrative present for them to form meaningful connections around. This narrative is especially clear when experienced from the ground. Therefore the focus of this study is the practices in one concrete farm. Still When I introduced myself in conversation with other biodynamic farmers as an anthropologist and told them I was living on the Grata ranch, the reply was always "oh, well you have come to the right place then". Their position as the oldest certified biodynamic vineyard is sure connected to this. The fact that they host yearly seminars, and that John is one of the most revered preparation-makers does little to dispel their reputation. So, even though the Grata ranch is not a "typical" biodynamic farm within the context of American biodynamic, it is a significant one. One

towards which many others are compared. The following chapters address different aspects of how sacred agriculture take shape in this point in space and time.

3

Identity and (self) perception

Perceptions of self, other and the environment

"It is not the gardener that makes the garden.
It is the garden that makes the gardener."
- Alan Chadwick

After these rounds of introduction, let us return to the very beginning. Sunday afternoon, the first weekend in January; the last day of the BDANC winter meeting. Most of the other participants had already started departing the ranch, but a few lingered. Some were clearing away tables and chairs from the meeting, others were just siting around, enjoying the heat of the low winter sun. Walking up to the porch of the *Big House* I soon found myself in a conversation with one of the participants, an elderly man who had been engaged in biodynamic agriculture most of his life. Having conversed only briefly with him over the course of the weekend, I wanted to get his thoughts on the seminar and his relation to biodynamic agriculture. After clearing up some minor confusion around me being, not an anthroposophist, but an anthropologist, I told him about my project and my intention to study biodynamic agriculture through participant observation. Not content with my interest in just working with a farmer, he told me that to truly understand biodynamic agriculture "You have to learn a new way of looking, one that will allow you see the spirit at work in the field. This gaze is not hard, like in a book, but soft like a child's". Learning about biodynamic agriculture this way he continued "knocks the ground out from under you" and allows you to "truly perceive nature". Throughout the daily life on the ranch, and the interviews I did during my fieldwork, the same phrases was repeated in many different settings, but they all substantiated the same general notion. Biodynamic agriculture, John would claim, is substantially different from organic agriculture, but to see the difference, you have to know how to look for it.

The significance of "learning a new way to look" through close engagement with nature in narratives about becoming a biodynamic farmer is the topic of this chapter. This emphasis has lead me to the perspective of viewing biodynamic agriculture as a skilled practice, requiring

"developmentally embodied responsiveness" (Ingold 2011, 65). Furthermore, I argue that this formulation might also be turned on its head, when describing how embodied responsiveness requires developmentally skilled practice. As ones skillfulness increases, also ones senses, or rather ones perception is sharpened. Ingold argues that skillful hunters "can tell things from subtle indications that you or I… might not even notice"(Ingold 2000, 190). I argue that the same goes for skillful farmers. This emphasis on learning a new way of looking can be seen inn light of what Ortner terms a "Key scenario". Such scenarios are elaborating "key symbols" that works in "prescribing certain culturally effective courses of action" (Ortner 1973, 1342). Given the movements fairly recent popularity in California most who have taken an interest in biodynamic agriculture have done so after reaching or approaching adulthood. I will therefore approach the ways of training ones perception as a biodynamic farmers as a resource from which the farmers in question can formulate a self-identity and develop it alongside a certain skillset.

To address this proposal, a case is made for the significance of how one perceives the environment for identity work, drawing on the concepts of skilled vision and taskscapes. It is argued that both how biodynamic farmers perform and perceive the taskscape they engage in contribute to shaping their identity. The definition of identity, applied in the following discussion draws upon the work of Kay Milton. She suggests that identity arises as a process of being within a context of references, and that "The process of living, and learning to live, in particular contexts provide each individual with the reference points for defining their own personal identity; it provides them with a mode of self-realization" (Milton 2002, 109). In this chapter, the spiritual aspects of nature make up this context, while the act of learning to look is the mode of self-realization. Linking this context of self-realization to the acquisition and practice of skill, I follow Ingold in asserting that "… the very practice of a technique is itself a statement of identity"(Ingold 2000, 319). Milton's approach seems to go well with the propositions of Christian Smith who views human beings as "moral believing animals" (Smith 2003). As such, if performing tasks can be analyzed as a part of an identity-statement, we might also come to see the landscape, both ones perception of it and the way one interacts with it, here understood through Ingolds concept of taskscape, as a further manifestation of identity.

Although focusing here on processes of enskillment and localism, this is of course not the only possible approach to the study of identity in this material. Considering the complexity of

phenomena like identity, most definitions seem doomed to a certain degree of reductionism. More so, Kay Milton observes and criticizes a tendency in anthropological writing to lean towards localism in the discussion of identity, stating that ”disembedded abstractions” such as money and mass marketed consumer goods can hold just as much power in shaping individuals identity, and that we as anthropologist need to withdraw our prejudices from our analysis (Milton 2002, 107). Nonetheless, the following is concerned with how identity is formed around such localist sentiments. When I focus on how local practices forms identity, it is done because this reflects the intentions of my informants and their desire to distance themselves from conventional agriculture. Thus in focusing on the content and practice of biodynamic agriculture, the aim is to remain faithful to Fredrik Barth's assertion that group identity is largely based on the boundaries between groups more than it is based on the content within groups (Barth 1969). As highlighted in the previous chapter, many practices are varied within the group of biodynamic growers, but firm boundaries are drawn towards those outside the group. However, having chosen to focus on the creation of a local knowledge and the perception of the environment, this part of the discussion will have to remain somewhat superficial. To explain these nuances within the filed of biodynamic agriculture, I will take two overlapping and converging paths towards describing how the identity of biodynamic farming is performed and interpreted. One path focuses on what skills are developed and through this training how perception is developed, the second on how this new perception elucidates points to which people can identify in nature. Common for both approaches is that they are understood as ways of differentiating ones practice from that of conventional farmers. As Richard Jenkins asserts, all approaches to identity necessarily become a matter of similarity and difference. As he observes, “Neither make sense without the other, and identification requires both” (Jenkins 2008, 21). With this in mind I will work towards showing how identity is shaped both in fostering similarities in ways of looking and juxtaposing this to perceived others. To do so, my own practice and identity as a field-researcher and apprentice attempting to “find a new way of looking” is activated.

This is not to be taken as an indication that this is the only salient approach to identity in the following material. In focusing mainly on self-identity I forgo a diversity of other potentially salient approaches. Processes of self-representation both within and outside the community proliferate. Also, role-expectations of other farmers practice, particularly relating to certification, could be used to add complexity to this material. Self-representation in the marked-place might also bring valuable insight, building on the assumption that biodynamic

winemakers will market their products differently than other winemakers. Given that the narrative of learning a new way of looking, and the relative open-mindedness to other factors that shape identity, I have chosen not to award such topics much focus but rather focus on a narrow field of identity to better address the larger issues of the thesis.

The return to situated knowledge

To gain insight into the relation between skill and vision I participated in the everyday work on the ranch. Entering into fieldwork with minimal experience from farmwork, I was pretty useless at first. It did not take much time on my first day, before I was told to stop standing idle around with my notebook and help out. Such, is probably the story of many apprentices and woofers. Talking about his experience with Wwoofers, John told me that many of the people who came to him had degrees from universities and colleges, "But one day they realize that they only knew bookish stuff, and not anything real". Seemingly this was not meant as an insult to the humanities, as John would regularly bring up the necessity of the arts for human development. Rather, the problem as he saw it, was that the youth had not learned to work with their hands, and had become too used to accepting knowledge from books rather than seeking it out themselves. This realization he argued invariably led to a desire for working with nature. From my very first day on the ranch, John told me that my impulse to study biodynamic agriculture was a manifestation of this same interest. My presence was seen in light of the quest for learning "something real", a similar quest as many of the young people that passed through his ranch were on, and one that he himself was still undertaking.

Coming to a farm to learn something real, entailed for John, first of all to work with ones hands. The skills he invested time in ranged from agricultural tasks to more artistic endeavors like painting and playing the harmonica. To best cover the diversity of skills considered conducive for human development, I take skill to be a general term for knowledgeable practice acquired through observation and imitation (Ingold 2000, 316). It is worth noting that although some of the skills in question were aimed at shaping a specialized adaptation to an ecological niche, many were articulated merely as a part of returning to an agrarian lifestyle. As we saw in the previous chapter, such a lifestyle is seen as a moral alternative to conventional agriculture, and in large part focuses around the tenants of civic agriculture, namely to embed production, agricultural and otherwise, in the local community (Lyson 2005). Thus, being able to make something yourself, rather than buying it was a common

theme in the skills that were sought. The bookshelf's of John s house was full of "how to" books, ranging from the largely influential *How to Grow More Vegetables: Than You Ever Thought Possible on Less Land Than You Can Imagine* by John Jeavons, to handbooks on building brick-ovens. Although referenced when preparing projects, these did not quite serve the same function as personal experience. The skills were largely in the category of embodied practices. In search of such embodied, knowledgeable, practices, John and Thomas regularly attended seminars and workshops aimed at teaching concrete skills. They also hosted such workshops on the ranch. During weekly craft-nights, making shoes, belts and other household products was taught and practiced. Basket weaving and other handycrafts were frequently exchanged through seminars, and a local freeschool offered daily classes on a diversity of topics. The Freeschool was a locally run initiative described as "a cooperative approach to living and learning." Volunteers gave classes nearly every day on varying subjects like quilting, fire-making and "Non-Hierarchical Hula Hooping". Practical participating in seminars and workshops was the preferred mode of learning these skills. Only when attending lectures would participants bringing notebooks. Only once, during the spring BDANC seminar, did I encounter an exception to this practice-orientation. A young apprentice from a biodynamic farm in Covalo who did not appear as engaged as the other participants walked around taking notes during a one such practical seminar. Her explanation for this was that she felt she had so much to learn, and was worried she would forget things if she did not write them down, a worry few other articulated. Rather, building an intuitive responsiveness' to the skills as hand was valued over such knowledge that needed remembering. Craft-skill was also presented as serving a practical purpose by affording more tactile products than store-bought goods and also serving to educate ones selves. The theme of educating ones self was often described by metaphors of growth.

One day in spring, I was helping John prepare the beds in his garden for planting the summer-crops. Preparing the beds involves first getting ripe compost form the piles over by the barn in a wheelbarrow, spreading this compost evenly over the beds and rotating it into the soil using a pitchfork. Then, John instructed me in how to form the beds into long and low mounds approximately one meter wide, raking any soil that rolled off them back into the beds in order to keep the walkways clear of soil. The final phase involved flattening the beds with the fork. I took to hitting the beds with my fork, leveling the soil. John quickly instructed me not to hit the bed, but to gently drop the end of the fork down on the bed, thus flattening the soil without compacting it. We started doing this on each our side of a bed. Straight away, John

rushed ahead, working much faster than me. I went about it, fumbling at first, but by the end of the first bed I had started to pick up pace. At this point, L turned to me and said: ”This is where people grow”. The growth indicated here, although related to the growth of vegetables for human consumption, is one of leaning skilled use of ones body. The change in ones “bodily techniques”(see: Mauss 1973) as one grows more competent with the forks was seen as growth and connected to other forms of growth, namely that of perception.

As for myself, coming from the university, with a notebook in my back pocket, my problem was according to John that I had been “pushing pencils to long”, rather than learning by tactile involvement. This had weakened my grip on reality, he explained. To reacquire that important grip, John encouraged me to get my hands dirty, saying:

> *“When you are working with your hands, it’s like having a social interaction with nature. You are constantly thinking, should I cut more here or not? Should I dig a bed over here or there? It’s the same sort of processes that take place when you are in a social interaction with other people. It’s a constant evaluation. So in turn, working with your hands prepare you for that”.*

This dialogical interaction with nature was demonstrated when John and his daughter Lilly pruned apple trees in January, together with a couple of long term Wwoofers. Outside John’s house there was an orchard with 12 apple trees. The goal was to keep the tree producing good amounts of fruit and the trees where kept about five or six meters tall. John and Lilly had pruned them over the course of several years into the “modified central leader” style. Each had a central stem, known as the leader, with a few solid branches extending outwards. Pruning them this way was according to John a local adaptation that helped shield the stem from the blazing sun in summer. When pruning, they where both constantly making observations on how the tree would respond to their action. Before cutting a branch, all the surrounding branches had to be considered, so that as little old wood as possible remained. Whenever two branches were crossing, one of them was cut so as to open up the tree as much as possible. Great care was also taken so as not to create unnecessary wounds in the bark and branches was cut back as far as possible so that the tree could heal easily.

The basis of all their decisions was based on how they expected the tree to react to their cuts. The best way to learn how the tree would respond was according to John to study it closely from year to year, and observe how it reacted to your cuts. John observed that “The trees

know where their etheric space is, and they grow into it". He described the etheric space as a field of energy surrounding each tree. As the tree would grow within it, it was a way of describing the expected form the tree would take. Observing the tree over time was according to John a way of gaining insight into the form of this esoteric space. Although John and Lilly certainly were observing the growth of the tree from year to year, they are also influenced it's development in not so subtle ways. John had planted these trees in straight rows and pruned them every year. After all this human involvement it might seem like the tree is more akin to a statue, a artifact of human making, than something that can express a natural form[5]. Catherine Degnen, in her article on gardening in England describes a similar relation between plants and people. In her material, plants, like people are perceived to be exhibiting certain amounts of intentionality and sentience (Degnen 2009, 160). Although the expressions of what plants "like" and "do" she describes are based on different cosmological foundations than the one described here, the results are remarkably similar. Through a perceived sociality with plants, gardens become in Degnen's material autobiographical of the relationship between gardener and plants (Degnen 2009, 161). Rejecting to treat people understanding of plants in an "as if" fashion, she argues that a mechanistic model on nature falls short in describing interactions like this. Although John shapes the tree with his cut, the tree responds through it's own slow becoming. Its form is neither wholly it's own, nor wholly that of the pruners (see: Ingold 2000, 187). The forming of the tree was made inn light of a set of ideas of the tree, as it will appear next year, and the expectations of future yields. John described this as an experienced understanding of the trees *archetype*, and gaining such understanding of the archetypes was a step towards a "mindful practice".

The development of mindful practice

This talk of *archetypes* set me on an inquiry into to the cosmological significance of nature in biodynamic agriculture. A general trend in the current of nature spirituality is, as Catherine Albanese observes that nature "provides a language to express cosmology and belief; it forms the basic for understanding and practicing a way of life" (Albanese 1990, 156). According to John nature, as we experience it is an imperfect manifestation of a perfect *archetype*. To a large degree, the importance of developing embodied skills, such as those he engaged while pruning apple trees is related to being able to perceive the archetypes one interacts with. As such, intuitive understanding of nature founded on experience, in addition to an anthroposophist langue for describing what one was observing was highly valued as a way of

improving the efficacy of biodynamic agriculture. Together they are perceived to be a source of accurate understanding of nature as it gave insight into the *archetypes,* and through them "nature itself", rather than reductionist models of nature. Significant to this is the anthroposophist understanding that nature, as we experience is composed of energy. Everything is seen as having a certain amount of life energy or *liveliness*. Although a significant part of the world around us this energy was thought to be hard to measure. The only conceived instrument for measuring this energy, according to John, is the human body and it could only do so if it was perceptive enough.

This emphasis on experience-based knowledge, with reference to esoteric aspects of nature and the environment closely resembles that found in the broader literature on countercultural spirituality. Susan Greenwood, in her study of new age spirituality in London hits upon similar ideas (Greenwood 2000). In her encounter with the life-world of the witches she studies, she describes a phenomena referred to as the otherworld. As Greenwood describes it, the otherworld represents an elevated plane of being, functioning as a source of knowledge for the magic-practitioners in her study (Greenwood 2000, 30). Consulting this otherworld is throughout her work taken to be a significant part of these magicians life, and their identities are shaped in their relationship with it (Greenwood 2000, 2). *Mindfulness*, and the ability to perceive the energies and archetypes in nature as I have described it above resemble Greenwoods observation on the otherworld. Although they are cloaked in different jargon, both pertain to a part of nature that might be invisible to the untrained eye, but which is within the range of the human sensory apparatus as a source of true knowledge. They also come with a number of exercises one must follow to attain such knowledge. Through the practice of these exercises and adhering to the knowledge they surrender provides the followers with a foundation on which to base their identity.

One term for the way of approaching the deeper layers of nature was developing ones *imaginative cognition.* During the seminar "Sex in the garden: The higher plants", held outside of Petaluma in April, the goal for the participants was to perceive through such *imaginative cognition* the gesture of a number of plants. The *higher plants* is a term used to describe flowers and grasses, traced by the lecturer to Johann Goethe's *The Metamorphosis of Plants*. In the seminar it was described how he separated the lower plants from the higher plants[6]. The lecturer explained how the higher plants all have a medicinal function based on their *gesture*. According to the lecturer, this gesture could be understood as a picture and that

”Nature is full of such pictures. Pictures of pathologies in the human soul. When a human is struggling with something, there is a picture of that. The job of the heart-eye is to find the connection between the thing and the feeling.”

To distinguish their *gesture,* the participants of the seminar were asked to observe the plants closely and try to interrogate its gesture. The participants split up to do this in small groups. We would smell the flower, feel the structure of the petals, stems and leaves and observe the way the flower was shaped. Throughout the exercise everybody tried to put words to the experience of the flower, often expressing it in phrases such as “bringing together things that have been broken” and “bringing the periphery to the center”. Experiencing these sensations within the flower was seen to say something about the action the flower performs in nature, and it’s potential medical use. The exercise of observing these functions was described as “doing a phenomenology”. This concept of phenomenology must be understood as different from the phenomenology of Martin Heidegger and Maurice Merleau-Ponty as it emphasizes the ability to perceive the *gestures* of things. If we start with Merleau-Ponty’s concept of phenomenology as the idea that “all consciousness is the consciousness of something” (Merleau-Ponty 2002, 6), the idea at hand seems to go beyond this. *Imaginative cognition might be seen as a* reflexive phenomenology of sorts, requiring one to take a step back, when perceiving the object at hand and attempting to perceive what “image the thing awakens in ones self”. Determining the “gesture” the thing in question, an aspect relating to the cosmic impulse guiding the plant or object in question. This was seen as a way of communicating with the plant archetype as “The plant itself is like writing on a slip of paper. We can see the writing, but we can’t see the hand that is writing. John described exercises like this as “having an email-exchange with the plants archetype. It will slowly start to divulge how it wants to grow and how you should work with it”. This is a similar motive as the one we saw with the pruning of the apple trees. As working with nature is seen as communicating with it, one can get this sort of experience through daily practice. Exercises in *imaginative cognition* seem to be merely a scholastic way of doing so. Although contemporary studies of non-rational and intuitive forms of understanding cant make good on any of the knowledge gained through imaginative cognition, some authors seem to give some credence to spirituality, focusing on the vast amounts of cognitive activity beneath our conscious mind. David Myers, inn his book *“Intuition: It’s Powers and Perils”*, although hesitant about “unchecked intuition” speculates that there might be more to our subconscious than first thought (Myers 2002, 243). I do not

intend to go into the depths of this here, but suffice to say, the challenge posed by my informants to what they call “reductionist science” is not unheard within that science itself.

After the seminars on imaginative cognition I would occasionally ask John to talk to me about a given plants “gesture”. While picking chamomile for one of the biodynamic preparations, a slow and arduous task that would usually take an hour every other day throughout may, sitting bent over in the flowerbed, John would instruct a visiting Wwoofer and me to try to be conscious of what we were doing, and not just rush through it. I found it opportune to ask him what the “gesture” of chamomile was. He quickly responded “why don’t you tell me that after having picked chamomile for an hour? You should know by then”. Although John would later consult a recorded lecture when debating the gesture of chamomile, the importance was for him engaging with the plant personally before accepting an explanation of it’s meaning. Knowledge from others was accepted as long as it arises from a source known for having a “good intuition”. Steiner’s work derives legitimacy from his reputation as a clairvoyant. Citing Steiner, John would say that the human being is “nature perceiving itself” and therefore the faculties of our senses are the most astute way to determine the state of the factual world. However, Steiner’s works could only be consulted as a guide. There was mention of a book during one of the seminars I attended. The book was an annotated edition of the agricultural course, intended as an introduction to the course, a text many found difficult to read at first. Dennis and John discussed this book and described it as a ridiculous project. The point of reading the agricultural course, they would argue, was not to find all the answers it but to have it further ones thinking by raising new questions. John insisted at some point that Steiner’s intention never was to explain all the mysteries of the world, but to show that there are mysteries and inspire us to try and fathom them for ourselves. It is only when we fall victim of “reductionist science” and rationalization that we are lead to doubt our sensory input. I will cover more ways of approaching the spiritual aspects of nature in the following chapters, but for now let us consider how it motivates changes in agricultural practice. A significant fear was that relying on modern farming-equipment was cutting us of from nature. The search for skilled practice and it’s correlated intuitive cognition must therefore be seen in relation to the use of such machines.

Shaping selves and fields

On several occasions in spring I observed John cultivation the soil under the vines in the vineyard. By tilling the soil, one uproots the grass and plants that grow between the vines, so as to prepare a layer of loose soil or *mulch* that helps maintain moisture in the ground throughout the summer. Precision John explained is essential when doing under-vine cultivation such as this. When cultivating, it is important to get as close to the vine as possible without actually touching it. Doing this with a tractor demands a skilled control of the machine that can only come with years of experience. John, having worked these fields since he was young had incorporated such skill. Still he started talking about transitioning to using a horse-drawn plough for doing the under-vine cultivation. He speculated that it might not be much more labour intensive, but more than that he valued the opportunity to work out in the fields with his workhorse Ben.

The ranch depended mostly on second hand tractors and harvesters, which would periodically break down and cause severe delays in the pending work. Maintenance on these machines was a large expense. In addition to this, heavy machinery like tractors compact the soil, and John would observe that lines in the landscape that had been traversed frequently by tractor were less fertile than the surroundings and that the soil often became displaced and mounded by frequent tractor-use. In conversation with one of the farmhands, John observed that to fix this problem one either had to cut out the tractor or use even more heavy-duty equipment. John expressed a clear preference for cutting out the heavy machinery, stating, ”If you have to use heavy equipment, you are dealing with a symptom rather than with the disease”. The disease in question was the displacement of soil and the loss of fertility. From John’s perspective, pumping out fertilizers and using heavy tractors to till the soil would address the symptom, but would propagate the disease. In doing so, John opposed himself to how conventional farmers would deal only with the symptoms and that their reliance on heavy machinery was a part of the disease. Constructing a composite character of all the undesirable traits attributed to conventional farming by the majority of my informants, this farmer would work the fields for money, caring little or nothing for the well-being of neither fields nor livestock. He would be on his tractor, with GPS-control, cut off from his large open monocrop fields, his tools and his skills specialized for the task at hand. Last but not least, rather than paying attention to their crop and keeping it healthy, they chemically sterilize the

environment it grows in. Knowing little or nothing of how plants grow, they lean on the magic of the modern industrial complex to do their work for them.

This stereotype is not too far away from the world described by contemporary authors on modern and high modernist agriculture (Scott 1998; Manning 2004). By focusing on "ways of knowing" Scott draws our attention to the relation between understanding and choice of practice. In doing so, he performs a critique of high modern agriculture, basing itself on a scientific but simplified understanding of nature and disregarding practical skill (Scott 1998, 305). The literature on the influence of modernity on human life tends to follow this line of argumentation. Antony Giddens makes a similar remark in his analysis of how people relate to their concrete surrounding, noting that "Abstract systems deskill" and that this deskilling "is an alienating and fragmenting phenomenon so far as the self is concerned" (Giddens 1991, 137). Rather than relying on local knowledge we have transferred our control to certain professional experts. In agriculture, this means reducing the place of the farm to an abstract space defined by certain parameters one can control but not necessarily understand. This practice crashes with the concept of biodynamic agriculture in its demand for specificity. As we have seen, the biodynamic farm standard emphasizes the concept of the farm organism. Though this emphasis is placed on the unique aspects of each farm. Therefore the standardization of skills and reliance on machines does not work. Quite contrary, standardization was seen to worsen the result of modernity in agriculture, as it increases the unfortunate power of forgetting by disconnecting people form place.

The Demeter Biodynamic farm standard requires an attention to all farm organisms, always emphasizing the unique microclimate and situation on the given farm. The corollary of this is that skill must be adapted to the specific farm on which one works. The observation John made while pruning trees support this idea. The best way of learning how nature works is to spend time on the same place over a longer period of time and observe the results of your actions. Knowledge of the place thus becomes a specialized knowledge. In discussing how practical knowledge is transmitted, Ingold observes that the "skilled hunter" is the "knowledgeable hunter" and that specialized knowledge often is elaborated and shared through stories. Ingold encourages us to "resist the temptation to assume that just because stories are stories, they are in some sense unreal or untrue". To do so is to disregard how perceptually attuned people are to their environment. Stories of skilled practitioners do not cover up the landscape in fiction, but guides the attention of the observer towards salient

aspects of it (Ingold 2000, 190). Here he is also in line with Smith who states that humans live by the stories they tell or that stories are part of "how we make sense of our world and the purpose of our lives in it" (Smith 2003, 64). Thomas told me a story of a vineyard where the owner, a woman, after having been approached by a spiritual presence complaining about the noise and pollution from her cultivation had stopped using tractor. Having done so, despite warnings from her friends and neighbors, they had all been astonished by the results when her crops subsequently had experienced a massive boost in crop quality. Her grapes had also suddenly developed a strong resilience to frost. This story speaks of how spiritual voices of nature, benefits those who listen and adapt to the messages. When the place speaks, one must listen to what is said but for most people, the trouble is hearing. The story also speaks of the voice of a specific place, interpreted by someone close enough to hear it.

The farmer in this story being female seems to underline one general observation or locally widespread idea about the relation between gender and rationality prevalent in both my material and in other studies of new age movements. Trusting ones intuition was among many of my informants regarded as most fundamentally feminine trait. Note that this not refers only to traits relating to the persons physiological gender, and that men can manifest these traits too, but that at this current time, the ability to follow intuition is stronger in women. This is a trait observed in the broader field of new age spirituality (see Myers 2002, 47; Salomonsen 1991). However, although references to Gaia and Demeter, both feminine characters, proliferated I encountered no dogmatic understanding of nature as feminine. Rather it seemed the to be a personal choice to identify nature as gendered. This was manifested in a prayer said before most common meals I attended. Everybody stated the prayer singing "For health and strength and daily bread". Then at the last line everybody followed together in" we give our thanks" and then split up, finishing with either "o lord", "to her" or "to earth", depending on preference.

Postulating that the cause could not be a part of the solution, John described the return to traditional skills as a remedy to the problems of modernization. If modernized agriculture had brought about the current problems, something new was needed to remedy them. During the spring BDANC-seminar, John went into a long discussion with another experienced biodynamic farmer about his work to develop and promote traditional skills. The two of them agreed that it would be ideal to do as much work by hand as possible, both because one would grow much more as a human being that way, and because it was an important part in

improving the spiritual quality of the landscape. John told the other farmer about his wish to start using horses for under-wine cultivation. The problem with this was that since he had started using horses at such high age, it would take long to get truly good at it. The other farmer then told that he had visited an Amish community and had seen how they worked their animals in the field. At the end of the day, he had seen a young Amish girl behind a huge workhorse, guiding the animal with the smallest and subtlest of cues straight into the stable. They both lamented the loss of such skills and wanted to work on bringing them back. Yet they expressed concerns that their own participation in the modern lifestyle has separated them from valuable skills, and thus from nature to such a degree, that it will take years to learn all the techniques that had been lost. John's desire to remedy this can be seen in light of wanting to reconnect skill with place much in line with how Paul Connerton, in his work on how cultures remember skills and adaptations (see Connerton 1989, 2009), describes one of the cultural processes of "remembering":

> *"For familiar places are appropriated by my lived body that has, as Merleau-Ponty said, a knowledge bred of familiarity that does not give us a position in objective space, but a sense of emplacement through their incorporation into the corporeal life of my habitual movements" (Connerton 2009, 32).*

The turn from farming with horse and plough to tractor can be seen as an attempt to do just this, giving a sense of connection to place not readily observed on a tractor. During the last month of my stay, John, together with a young farmer from the area started working seriously towards using a horse for doing under-vine cultivation. John told me that his knowledge of workhorses was limited to having attended a few workshops on the subject, but he was quite used to riding horses. One or twice a week they would harness up Ben, the old workhorse, and drag a large piece of wood around the back roads on the ranch for an hour or two. This they did in order to strengthen Ben and get him back in shape after years of not working. Then they would try putting him in front of one of the old ploughs found around the farm, and plough a few vine-rows in the northernmost block of the main vineyard. John would set off down the row with an old and rusted plow haphazardly throwing dirt under the vines. The work was slow, and the tools inefficient but trailing behind the horse slowly became a skilled practice for John that connected him more firmly to the place, allowing him to observe and feel the soil he was tilling more closely. Here we see the significance of not just reading Steiner's ideological works, but focusing on direct perception. Biodynamic practices as we have seen are related to place, and to embedding knowledge in places. *Intuitive perception*

seems to be about making knowledge local. The moral corruption of the conventional farmer has to do with his global, standardized knowledge. I will deal more with agricultural methods in the later chapters, dealing further with ways in which places are made unique.

In this way, it is not only Connertons "remembering" that is done when choosing traditional skills for ones work in the field. Through the selection of skills, we see how identity takes shape in interaction with nature. Furthermore, farming with horse and plough becomes a way of constituting a specific task, and thus a specific taskscape. Seen in the light of the relationship between identity and skill, the taskscape becomes a way of signaling identity. Gardens and fields become a reservoir from which to shape ones identity as a farmer, both as a source of skilled vision and as a physical memory of practice. As Degnen observes, gardens become autobiographies of the relationship between man and nature. Like the flowers in Degnens material (Degnen 2009, 162), John's pruned apple trees, and the fields shaped by horse drawn plough become laden with meaning, both by being incorporated into the life of the farmer as complex entities, and by being understood through skilled practices. The time John invested in pruning the orchard was rewarded in form of an orderly landscape and a productive harvest. He also expressed joy in seeing the tree evolve from year to year, through his manipulation. This work in turn helped shape the farmer's gaze, allowing them to draw upon the intuition trained through the exercise of *imaginative cognition*.

A sense of self

This chapter has connected everyday tasks such as pruning trees, plowing fields and weaving baskets to larger issues of identity and perception. This large array of practices all have the common theme of being skilled. By this it is indicated that they are somehow trainable and preferably learned through practice. The self-identity of the farmers in this study, I have argued circled around such skills. Rather than focusing on the goods they consumed, a valid approach, as they were far from self-sustained, I have given credence to their desire for self-sustainability and focused on the ways in which they envision it. This has drawn me to focus on practices that are seen as ways of getting back to nature, for their double beneficiary purpose. Proximity to nature gave an opportunity, not only foster one's body but also to foster ones mindfulness. Drawing on both Degnen and Greenwood's perspectives, we can come to see gaining such mindfulness as a way of making one's interaction with nature a source of fundamental truths about the world.

By combining the interest in traditional skills and the way it relates to experience, this chapter is intended to start us on the way of understanding how the farmers in this study, drawing on the thinking of Rudolph Steiner, go about creating a new indigenous knowledge to make the landscape they live out their life in meaningful. It is argued that the emphasis on learning a way of looking, related to this knowledge, takes shape of an elaborating key symbol by outlining an effective course of becoming a biodynamic farmer. Practice and perception, as Ingold observes develop side by side. To elucidate this I have drawn upon my own identity as a fieldworker. Attempting to understand the theoretical aspects of Steiner's works, without connecting them to the daily work of farming only emphasized my identity as a so called "reductionist scientist". Thus, it was only when I started to approach the two at the same time I was accepted as truly trying to understand biodynamic agriculture.

Like the identities of the new age magicians described by Greenwood relate to perceiving a higher spiritual realm or *otherworld* (Greenwood 2000), relating spiritually to nature was a significant marker of identity for the participants in this study, one that allowed them to clearly distinguish themselves from the modern agricultural complex. Combined with the view that biodynamic agriculture, rather than being a universe of accepted facts is a pathway of discovery, has to the conclusion that ones identity as a biodynamic farmer stems more from the way you are searching for meaning in the environment, than accepting such knowledge from lexical knowledge of written sources. This, and the following discussions are laden with Erving Goffman's performative, theatrical identities (Goffman 1959). Identity is not only experienced individually but also performed and negotiated intersubjectively. I have chosen to forego inquires into how self is represented on an analytical level in order to retain the focus on how the way identity relates to experience. This is in part due to the nature material at hand, with its focus on participation in farm-work. Further inquiry into the meetings among biodynamic farmers and between biodynamic and conventional farmers would be needed in order to make a coherent discussion of the way identity is presented.

We have not yet come to the point of truly understanding what "seeing the spirits in the field" entails. To do so requires the next two chapters as well. However, this far glimpsed one of the themes salient for self-identification as a biodynamic farmer. Learning to understand such matters was firmly anchored to self-identity and group identity. If the practice of growing organic vegetables, as Guthman seems to imply in her analysis is not enough to form a

cohesive group, the struggling to learn a new way of seeing nature is. With this motive established, I do not intend to spend more time dwelling on identity as a concrete topic, although it will continue to linger in the background as we discuss the idiosyncrasies of biodynamic agriculture and its opposition to conventional agriculture. However, not just a source of identity, the skilled perception outlined in this chapter is also a resource in the decision-making that goes into the daily practice of farming. In this chapter development of simple practical skills like raking a bed or plowing a field was seen as potential sources of human development and growth. In the following chapter, I take a turn towards the study of materials and materiality to observe how this change in skill and taskscape manifest in the change of landscape.

4

Living in a living world

Perceiving the alchemy of diversity and the liveliness of the soil

The kiss of the sun for pardon,
The song of the birds for mirth,--
One is nearer God's heart in a garden
Than anywhere else on earth.

-Dorothy Frances Gurney

Driving along northern California's wine country, I would pay attention to the vineyards pass and try to guess if they were organic or not. The conventional vineyards typically had no grass on the ground. In the ones that did the grass was characteristically withered and yellow, burned by pesticides. In the organic vineyards you would see cover crops and tall grass among the vines. In one particular field just outside of the town of Hopland there was a biodynamic field right next to a conventionally farmed field. It seemed that on the biodynamic side, for once, the grass really was greener. I would often I try to engage people in conversation on how they perceived the difference between a biodynamic and a conventional farm. An administrative employee at one of the biodynamic farms in the area put it like this:

> *"When you go down to the big wineries in Napa, the vineyard, it´s all dead. When you walk out into a biodynamic vineyard, with the cower-crops and the hedges, it just feels more alive"*

In saying this, she did not say that it looks more alive. Building upon the previous chapter, I posit when claiming that the landscape feels more alive is a way of observing the concept of "the spirit in the field", or articulating the underlying spirituality of nature. Her remark referred, not only to the biodiversity, cower-crops and hedges that that separates biodynamic farms from most conventional farms. Seemingly it refers too more than the immediately visible. Rather, as John would often remark this feeling refers to the abundance of "life forces" in biodynamic fields and vineyards. In this chapter I interrogate just what this is that is more alive and how it might be understood.

To do so, I start with the visible, and proceed towards the esoteric. In biodynamic agriculture, one of the main sources of fertility is compost. Noting the enthusiasm that arose in the crowd upon approaching a well-tended pile of compost during a farm tour on one of my first day in the field, I quickly came to understand that it was more than just a source of nourishment for their plants. A pile of compost is a tepid, lukewarm thing. Neither hot nor cold, it is to the casual observer little more than a pile of decaying plant-matter. Dwelling within is a plethora of bugs, germs and fungi. However, given its significance as a source of fertility in biodynamic agriculture, it is also seen as a source of "liveliness". In this chapter the concern is with matter, not as a static phenomena, but as a mutable substances with traits that change over time. In doing so, I follow Ingolds suggestion that:

> *"Bringing things to life, then, is a matter not of adding to them a sprinkling of agency but restoring them to the generative fluxes of the world of materials in which they came into being and continue to subsist"(Ingold 2011, 29)*[7].

Although dealing with relations between humans and animals, my approach should not be regarded as a part of what is broadly conceived of as "multi-species ethnography" (see: Kirksey and Helmreich 2010), as I do not concern myself with the proposed agency of non-human others. Rather I wish to see explore how animals are employed to change the landscape and how their activities are understood through the interpretive frame that is biodynamic agriculture. Going forward with this discussion of diversity, I take the world to be composed of living substances, all pursuing their discreet trajectories and intertwined in what Ingold terms a "meshwork". This meshwork is entangled lines of life, growth and movement (Ingold 2011, 63). The point of this approach is not to explore the social life of microbes and plants, but to deal with the world as a living, mutable thing, and to explore my informant's interaction with this mutable existence, and attempt to grasp their understanding of it. This is also why particular attention is not put on the subject of domestication here. To do so effectively would require a closer focus on a more narrow range of relations. I also find that, as Ingold observes, focusing on the process of domestication is playing into metanarrative of "human transcendence of nature". Rather than seeing crops and livestock as something the farmer "makes" he suggests a perspective where the farmer sets up certain condition for them to develop within. In an entangled world we have more to gain by approaching such phenomena as processes of "growth" Ingold concludes (Ingold 2000, 77; See also: Degnen 2009). The intention in this chapter is to display striking similarities in ways diversity and materiality is understood across fields, both sentient and animate.

This discussion, as the preceding one, draws heavily upon Ingolds thinking. However, much of his writing has the form of philosophical, general observation on how people live in the world. As Clifford Geertz observes, "no one lives in the world in general. Everybody… lives in some confined and limited stretch of it – 'the world around here'"(Geertz 1996, 262). With this in mind I wish to approach the practice of my informants so as to take into account their material surroundings, but in the end the focus is on their actions and how they perceive the biodiversity that interweave with their practices. In dealing with biodiversity, I take Arturo Escobar's writing on the subject as my point of departure. Biodiversity he claims is not a "true object that science progressively uncovers" but a "historically produced discourse"(Escobar 1998, 54). Biodiversity, in his perspective becomes a term open for ethnographic description. It has to be studied empirically to firmly understand what it is and what it does. By doing so, one can determine what is at stake when biodiversity is threatened. I will do this by approaching biodiversity as a way of anchoring a specific discourse of what is desired in nature. Going beyond this perspective I will move towards explaining how biodynamic fields come to feel more alive by attending to the sensory experiences related to biodiversity. To do so, let us begin by outlining the understanding of biodiversity in question.

The practice and produce of polyculture

Overshooting the Demeter demands for 10% of the farm acreage to preserved as "biodiversity reserve" by a long shot, slightly less 900 of the Grata ranch's 1000 acres remain a wildlife preserve, free of agriculture and dwelling. This acreage consists mostly of forest and rivers crisscrossed by small trails. The diversity of wildlife in these hills was talked about, mostly as a source of inspiration and knowledge. The way plants had adapted there was though to bring invaluable insight into how the farm might be run more in tune with the climate of the valley. Participating in nature-walks around the estate and discussing aspects of it with the ranches dwellers gave an impression that the hillside that was mostly used for hiking. Much of the profit from the vineyard had gone into buying this land, and it was seen as a resource by not being developed. There was, among parts of the population on the ranch a keen interest in understanding the species of plants and animals present in the hills better.

In the fields on the ranch, one finds a much more articulated interest in biodiversity. In addition to growing grapes, the family cooperated on a number of different interplanting-

projects. In short this entails planting a faster growing crop between slower growing crops to maximize the productive capacity of a field. As crop rotation is difficult when cultivating wines, the farm-standard demands the use of cover crops, and the interplanting-projects is counted towards this. Most conventional farms keep the ground under the wines mulched to hinder weeds from rooting and water from evaporating during the hot summer months, in addition to spraying with pesticides. The use of cover crops is a standard part of the organic/biodynamic wine industry. For most parts, the cover consists of different grasses, mustards fava beans and other legumes intended to bind nitrogen in the soil. In spring, these are plowed in as green compost.

By interplanting wheat in every third row of the vineyard on a three-year rotation, and by obtaining a small combine that could harvest between the rows along with a seed blower and an old millstone, the Grata family had started producing their own flour. The spring of 2012 marked the third year of this project, and for the entirety of my stay, Andrew's wife Chosovi baked sourdough bread made from homegrown wheat every week. The spring I was there, they were also planting sunflowers in some rows to make sunflower oil, and the year before, they had dried and pressed grape seeds to make grape seed oil. These were labour intensive-tasks and depended on somebody taking charge of them. The grape seed oil was the result of one of the more permanent wwoofers taking the initiative to getting the seeds cleaned and pressed. Although some of the production required specialized equipment, human labour was a key ingredient in getting these projects done. As observed by Susan Rogers, "mixed farming paradigms" requires more manual labour, as most of the machinery developed for modern agriculture is specialized towards a single task (Rogers 1987). Thus, the interest in developing manual a local knowledge, and local skills, as discussed in the previous chapter, is essential to handle these challenges.

Just like the vineyards were interplanted to increase the diversity of what is commonly a monoculture, John's garden was also laid out to promote diversity. Different vegetables were planted alongside each other and a fruit trees were spread out amongst the beds. The garden bordered on the forest, leaving it vulnerable to Quail-attacks, and so the beds, after planting, were covered with netting. In addition to interplanting different crops, the fields were also used to graze animals. During the winter months, while the vines lie dormant, John would keep the cow and horses in small pastures in the vineyards. I would help him move them, often several times a week. Each time we would fence inn the total length of three or four

rows of vines with electrical fence. Here they would spend a few days at a time eating the grass that grows between the vines and spreading dung. Thomas used the areas of the vineyard where the cows were not grazing, to go for daily walks with the goats. John also kept two mobile chicken-coops on rotation in different areas of the vineyard. He estimated that in the course of two or three years, he managed to rotate the cows through the whole vineyard. Similar to the beds being covered to keep quail out, the vineyard was fenced off. The fence, I was told was to keep deer from eating the buds on the vines. The financial setback of having a deer eating these buds was so large that it warranted fencing of the vineyard. Ideally one should not need to use such measures, but rather make sure that there were predators that could control any pest that might be a problem. Bees where kept, both by the Grata, and by many other farmers I spoke to. One of them talked enthusiastically about having seen a bee kill a leaf-eating insect on one of his plants, and about getting all his neighbors to get beehives. Another way of controlling unwanted insect populations was keeping Bat-boxes in the vineyard. There was also a keen interest in finding plants and animals that would go well together. John was interested in breeding cows that would be well suited to the ranch, rather than buying cows somewhere else. He explained this in the same way he explained the concept of *terroir* in the farms wine grape. He thought it would take some time for a plant or an animal to really adapt to its environment. Once it did however, it would be much more productive and fit better into that particular environment. When talking about how to get animals and landscape to fit better together, he made frequent references to the concept coevolution. One example of this was the fact that grasses and cows had coevolved, and that grasses thus could not grow optimally without being grazed.

We have now seen the contents of what was considered a diverse landscape. If I were to follow Escobar, the next step would be to describe the discourse of productivity "biodiversity" could be seen as anchoring. This discourse prefers the use of natural predators to pesticides and favors complementarity over singularity. This resembles Escobar's "Cultural autonomy"-manifestation of biodiversity, one that focuses on how diversity enters into "context-specific improvisation" (Escobar 1998, 62). To a large part, this analysis is fitting. There was an explicit interest in aiding the *resilience* of the farm both in allowing it to adapt to producing different types of crops, and supplying the family with more sources of income. Before giving a talk at a major organic farming conference about their work with intercropping Nathaniel Grata talked about what he wanted to tell people about this project. He described the purpose of like this: "Instead of just having wine and getting drunk, you can

have wine and bread". He told me that his intention was to empower other farmers by showing them their potential. He was very interested in how one could increase the productive capabilities of small, local farmers through such creativity.

The practice of biodynamic agriculture however seeks to add another layer to this *resilience*. Virginia Nazarea, in her review article on biodiversity as a topic of anthropological inquiry (Nazarea 2006) observes that understanding biodiversity entails more than reducing it to a historical discourse. It requires us to understand how life is lived with the world: "More important in relation to biodiversity are memories of places and food, of trails followed, gardens tended, and meals savored in solitude or in the company of one's folks." (Nazarea 2006, 327). Building on the relation between self-identity and the experience of place developed the in the previous chapter and on the observation that local knowledge is knowledge gained through temporal engagement with a location I will now explore biodiversity as a part of the lived world. Following Nazarea this leads me to interrogate not just how biodiversity is understood to be functioning, but how it's influence can be sensed in the landscape over time. To return to Ingolds terminology, I will now go on to see how the lines of humans, the diverse environment and place "mesh".

The mutability of the landscape

Meshing, I will argue is not only a process of entanglement. It is also a process of transformation. As one thing interacts with another, both parties are changed at their own discreet rates. Particular ways of meshing will therefore beget particular outcomes. While herding the cows from one pasture to another one day in February, I asked John why he shifted the herd's pastures so regularly. Up until that point, the reason John had given for moving the cows had had been with making sure there was enough grass for them to eat within their pasture. I asked why he did not put them in a larger pasture and thus reduced the amount of times he would have to move them, freeing up time for other endeavors. He answered that keeping the herd in a small, concentrated area for a short period of time had a different type of impact on the field than keeping them in a large area for a longer period of time. By moving the herd frequently, they only got to eat the tallest and greenest grass, while still spreading their dung. John then told me that the idea behind it was to simulate the way a herd moves though an area. A large herd, John explained, will spend a short amount of time in a small area eating it down rapidly and then move on. This, he insisted was good for the

Plate 3: John and hens in the meadow.

field, as the grass was chewed down and fertilized which both made room for new grass to grow and increased the fertility of the soil. It is this fertility and the way soil is conceptualized I will concern myself with here. Soil, when plowing and planting becomes a medium one passes through, not just a surface to tread on. Paraphrasing Marshal McLuhan's "the medium is the message" (see: McLuhan 1994), Roderick Salisbury observes that "modifying the medium of expression, in this case the soil, alters the expression itself" (Salisbury 2012, 17). McLuhans saying, originally pertaining to media studies and communication theory entails that the form of the medium necessarily embeds itself in the message it expresses. This it is claimed necessitates a symbiotic relationship between medium and message. Applied to soil this can allow us to conceptualize how change was understood to not only happen in the soil, but also to it. The substance of the soil itself, in this context the medium, was enlivened. Detecting the presence of fertility and the presence of more microorganisms was articulated as "enlivening the soil", marking a change of its substance. This was seen as the transformation of a lower, less spiritual, substance to its higher, more esoteric form.

On a later occasion he demonstrated another such use of animals in shaping the landscape in the field near by his house. The field sloped down towards his driveway, and in parts this

steep slope, no plants grew. He told me that this was because the slope was so steep that no plants seeds could germinate there. To combat this he had started to put the fence for the sheep-pasture all the way down to the road, letting the sheep walk in the steep slope. Having done so over time, John observed, that this practice had eroded the slope, and grass and flowers now covered it. This was an ongoing process that had taken several years, and it would take several more years before the slope was satisfactory eroded. Describing the way the animals helped change the expression of the soil, John used the term "animal impact". Allowing the cows and goats to roam the vineyards in the fall and winter, John would make observations on the quality of life in the vineyards. A field that had been laid fallow a few years before my arrival was observed to now contain an increased diversity in grass, plants and flowers. In fields less overgrown than that one, John would point out areas on the ground and describe the animal impact on that particular area. A large tuft of grass would signal a pile of cow-dung the year before. While observing the cows moving in the field, he would comment on how they would mix the feces into the topsoil by walking around in it. This way he would remark on the temporality of the landscape and with it, the complexity of the coevolving taskscape of the different organisms engaged in it. In other words, the meshwork.

All these ways of enriching the diversity of the soil-composition are significant, but the most elaborated way of bringing life to the soil is the application of compost. In this context it is not such a leap, going from soil to compost. Both are transformed through the existence of animal life. In both cases, a diversity of animal life is encouraged to get the best result. Like the field, the piles of compost are tended so that the animal life, beneficiary to its further development may flourish. Through the animal reworking of soil there is a "production of new textures and topography, soil both gives and is given meaning". The transformation of animal fecal matter and hay into nutritious compost, like the reworking of soil "becomes a medium of expression, relaying strong symbols to the world" (Salisbury 2012, 37). However the liminality of decaying matter has caused a tendency to describe decay as an "ignoble" process among those who seek to develop our understanding of such substances in anthropology (See: DeSilvey 2006; Taussig 2009)[8]. But if we re-contextualize decay and see it as a form of becoming, things change. There is in itself nothing "ignoble" about decay and fermentation, despite its superficially unpleasant odors of decaying plant matter and yeast. Piles of decaying grapes lined the vineyard. On rainy days you could see a reddish brown liquid run of the piles, with a smell vaguely resembling wine and yeast. Anne-Katrine Norbye touches on a similar subject in her study of Norwegian mountain farming, also known as a

støl (Norbye 2010). On describing the sale of a specific type of cheese at a local marked in Hallingdal, Norway. Selling *kyrost*, a cheese made on certain such farms, she experienced two distinct ways of responding to its taste. Those who had little or no experience with mountain farming described it as tasting "over-cooked octopus" or "eraser". Those, on the other hand, who had experienced living on the *støl*, and therefore with the cheese, were categorically positive to its taste. These, mostly elderly farmers, described it as reminding them of their time on the *støl*. Thus, Norbye observes, the cheese went from being "mere dairy product" to an "inalienable commodity imbued with place". All this through having its sensory attributes intermingled with memories and cultural values (Norbye 2010, 153). Similar to Norbyes cheeses who's sensory aspect is reconstituted through cultural context, decay when it serves a role such as the one it does in biodynamic agriculture loses its connotation to filth and becomes a pure substance. The transformation of one substance into another through such processes where by many referred to as alchemy. "Not alchemy, as in turning iron into gold", John would remark, "Alchemy is in turning a lower substance, to a higher, more spiritual one". Thus compost becomes the transition for material into new substances. Although seemingly dirty, it is far from matter out of place.

Steiner is said to be widely influenced by Johann Wolfgang von Goethe's thinking on the subject of alchemy. In describing his understanding of the analogous relation between digestion and growth, Wolf Storl relates this to Steiners understanding of the movements and transformation of substances (Storl 1979, 84). John described alchemy, understood as a process of refinement, as integral to every aspect of biodynamic farming. Manifesting in the formation of crystals and the growth of plants it took on its most elaborate form regard to decay, decomposition and fermentation. In these processes, the "life forces of nature bind into matter", and become nourishment for the human body. In analyzing these processes I will be drawing an Ingolds turn towards the generative fluxes of materiality. Materials, he stresses, "carry on, undergoing continual modulation as they do so. In the phenomenal world, every material is a becoming" (Ingold 2012, 435). Following this suggestion, and withdrawing temporarily from compost, let us turn to another form of lively substances engaged in acts of transformation. Ones with trajectories of their own and slightly more savory.

Growing cultures in sauerkraut, bread and wine

When I arrived at John's house one morning in March, he was busy getting ready to make a batch of sauerkraut. He noted that according the *Stella Natura,* an astrological calendar based on the experimental work of Maria Thun, flowering activity would be stronger before noon, he was eager to get the fermentation starting. The Stella Natura worked as a reference-guide for the astrological influence on plants growth. Frequently used to determine ideal times for planting, cultivating and harvesting. Days were divides into segments where the astrological influence was beneficiary for root, flower, leaf and fruit activity. Since my arrival, the last batch he made had been served at nearly every meal in the house. He had purchased four boxes of cabbage from a friend of his that runs an organic farm, and supplemented with cabbages, carrots, radishes and parsley from his own garden. Cutting up the cabbages he showed me the difference between the homegrown and the purchased cabbages. The ones from his garden varied in size and were much more dense, with less air between the leaves. The ones he had purchased were more homogenous in size and had a wax-like surface. On the cold misty morning, we stood on the porch and cut of the stems and dead leaves of the cabbages before rinsing them in cold water, washing off dirt and snails until our hands where numb. After we had finished rinsing the cabbages, we brought them inside. Then, John sliced them into thin strips using a special knife referred to as a "mandolin", resembling a large egg-slicer before stuffing the mix into clay pots. The clay pots had a lid that fit into a large groove on the top of the pot. This groove could be filled with water to make a simple but effective one-way pressure-valve, allowing for the release of carbon dioxide from the fermenting sauerkraut. After placing the minced cabbages and vegetables in the pot along with caraway seeds, mustard seeds, pepper corn and chili, John would knead them, stating that this was to tenderize it all and start the process of fermentation. Before putting the mixture in the pots, John stuck his head as far into he pots as he could and smelled them. He told me that after making the last batch, one of them had a strange smell that had been reflected in the taste. He had rinsed them thoroughly, but was afraid that this smell was the sign of some strange infection that could ruin his next batch.

Placing the pots in the corner by the oven in the guestroom, John told me that he did so to give the process of fermentation a small boost of energy to get it going. Naively, I asked if he needed to add anything to it to start the fermentation. John then just held up a leaf left over

from a cabbage and pointed to the skin of the leaf. Rubbing it gently between his forefingers, he told me that everything that is needed to start the fermentation was right there.

> *"Just like when it comes to wine-grapes, all the bacteria you need to start the fermentation is right here. It is an endophyte living on the surface of the plant. On our grapes, you can see it as a thick cloudy sheen on the grape. On grapes from conventional vineyards however, this layer will be thinner. That's why they cant get theirs to ferment naturally."*

The qualities of this strain of yeast, as he explained, were thought to vary greatly with the health of the field. Similar explanations were given with relations to other fermented products on the farm. The bread Chosovi made was from the grain interplant in the vineyard, and from this grain she had started a sourdough. A sourdough, shortly put is a living yeast culture used for baking. A small portion of flour is mixed with water and milk and kept at just above room temperature. The milk works as nourishment for the ambient yeast, and the temperature stimulates its growth. Then, once the yeast has started multiplying, it can be used to raise the bread-dough. When making sourdough, a part of the starter is saved for the next batch of bread, thus the same bacterial culture remains active over time. If the starter is left alone for to long, the yeast will inn the end consume all the nourishment in its environment and die. The same can be observed when making wine. The yeast that turns sugar into alcohol ends up making the environment of the tanks so full of alcohol that it kills itself. These processes, although potentially spontaneous from natures side find themselves enmeshed in large amounts of human interaction. The sourdough must be "fed" at regular intervals, done by adding to it more flour so the yeast has room to grow. Likewise the sauerkraut, like raw milk cheese must remain tempered to start the fermentation and the wine must constantly be checked for infections of the wrong kinds of bacteria that instead of turning sugar into alcohol transform alcohol into vinegar. Some processes can be smelled, like John smelling for a possible infection in the sauerkraut-jar, but not all of these live organisms can be observed with the human sensory organ. The presence of *bad* bacteria in the wine for instance has to be detected in a laboratory. Still, even though they are not available to the most immediate sensory experience, their presence can be detected.

During my conversations with John on the subject he, emphasized several beneficiary aspects of fermented foods and *living* foods. First and foremost, they are seen as "pre-digested". Both John and Thomas speculated on this and claimed that predigested food is better for the body

because it does not have to work so hard to digest it. It was also observed by one of his siblings that eating living food helps keep up the natural biodiversity in the body. Furthermore, John lamented the decline of live foods in modern society linking it to a form of cultural loss. ”We are living beings, so we have to eat living food. We have been doing so for years and years” he would say. By losing touch with our native cuisine, he claimed, we also lose touch with the natural spirits of our environment. While sauerkraut might not be native to northern California, the one John made was claimed to have gained a taste endemic to the place. This taste of place was articulated with relation to the concept of *terroir*. *Terroir* is a term endemic to the French wine industry that has spawned a wide literature, both of praise, criticism and science inquiry. Put short, it deals with the relation between the idiosyncrasies of the vineyard and the taste of the wine it makes. Some geologist and vintners claim taste to be directly traceable to soil formation and down to the formation of the bedrock (Wilson 1999). Others pay closer attention to the social practice terroir has in the hands of certain groups of people such as chefs and food-writers, referred to as “taste makers”, allied to shape wider cultural taste-preferences (Trubek 2008). Pertaining to sauerkraut, wine and bread, *terroir* was articulated similarly, but on multiple levels. The native yeast-cultures might be seen as the most mundane of these. The qualitative influence it has on produce was articulated by Laura, one of the vintners on the ranch in regard to winemaking. “Using native yeast in our biodynamic wines really allows the *terroir* to shine through”. John would often speak of *terroir* as a plants ability to adapt, not just to the climate of a region, but also to the energies of that area. Perhaps the best way to understand how, diversity or *terroir* might help us understand this particular significance of the taste of place in regard to diversity is by examining it’s significance in constructing a unique locality. To do so, let us turn to what happens to the understanding of place if we take local distinguishing features away.

Pasteurian nightmares

As the practice of multi-cropping increases the human populations resilience, so does soil diversity increase the plant resilience. To illustrate this, let us consider an insect. Phylloxera is a pest that preys on and that have spread, from America to most of the world[9]. It originated on the northern American eastern coast and spread rapidly across Europe in the 1800s after botanist started bringing samplings of new wines back from the new world. This nearly wiped out the vineyards of northern Europe, and is still a serious problem for vintners all over the world. The microscopic, sap-sucking insect lives on attacking the roots of the wine, causing

deformation of the roots and fungal infections that stop of the flow of sap in the plant. John, Andrew, and Chosovi all gave the same story about phylloxera at the Grata ranch. They all knew that it was there, but that the lack of any outbreak was caused by it being kept in check by the diversity of other life forms in the soil. Phylloxera, it was claimed is almost impossible to kill with regular pesticides. Thus, it will still be present even though most of the other life-forms in a vineyard has been wiped out. In a vineyard where there are few other life forms in the soil, there will simply be more room for it. In the vineyards at the Grata ranch, the other life forms keep the phylloxera at bay. The same idea goes for the rest of the animal kingdom. Harmful moths and insects are held in check by bees and bats, herbivores by carnivores and so on. The idea is to use the natural enemy of the pests to control them. Maintaining a healthy diversity in this way was seen as an moral alternative to sterility.

One day we were moving the cows from one pasture to another I got into a conversation with John on the subject of pasteurization. He commented that he "Pasteurization is both valid, and a hoax". Upon further question he told me that he thought that given, "the way dairy-farms work these days, you can't go without it, but it's only covering up the real problem that those farms create". With the unsanitary conditions of the large cattle-ranches and due to the feed the cattle are given, pasteurization is necessary to contain the spread of serious illness among the consumers. The problem according to him was that the structure around the production is so skewed. In an ideal setting, one would not need to pasteurize the milk because the situation of production would be better and thus healthier. Further he remarked that "…milk from farms like that don't have the necessary nutrients, so you might as well not drink their milk". Rather John envisioned being able to buy much more food locally from neighboring farmers where one might keep an eye on the health of their livestock to judge the quality of the product. In the age of what Heather Paxon names "mico-bio-politics such regulation on potential contaminants is a significant part of state regulation. Taking the sale of raw milk cheese as a case, Paxson discuses how such agricultural products undergo strict regulation to prevent outbreaks of food-poisoning (Paxson 2008). Similar restrictions as the ones discussed by Paxson can be found in the handling and processing of manure. From the point of legislation this is also treated as a potential source of contamination. As much of the compost applied to the Grata family's vineyard does not go through a long enough and warm enough composting-period it is technically counted as "raw manure". As a result of this, it can't be applied to the fields closer than 90 days from harvest to protect the produce from contamination (Demeter Association USA 2010, 12). Even though it mostly contains crushed

grapes. Only a small part of it consists of actual manure from cows. Since the cows grace the vineyard, they get manure from a local organic dairy for the large compost-piles. The smaller and better-tended piles John Use for his own garden consist of goat-shit from the barn by John's house, hay and other plant-matter.

But, even though the biodynamic field is more diverse than other fields, it is still a pragmatic diversity. Put short, it is not diversity in, and of itself that is desired but a specific grouping of species, conducive to the end of human consumption. From a purely biological perspective there might be nothing inherently bad about *bad bacteria*. The same goes for phylloxera or deer eating the buds and leaves on the vine. Such categories come about though a discursive closing of what biodiversity is, or rather what it does. Diversity, although wanted has to be controlled. It is controlled on the local level through everyday practice and through aiding the wanted diversity. As we see, humans through their direct and indirect actions do not shape the world around them by them selves. The world, seen as composed of living materials and permeated by other living beings is in a constant flux. The social perception of it however we find is more stable. Despite the growth of the ranch (in population, production and fertility), it is still perceived to be quintessentially the same place, although it's aspects have changed. It has become more "alive" as Thomas would say, when describing the changes that happened when they transitioned to biodynmaics. In this process, the presence of other living organisms is invaluable, and we can hardly see it as becoming more alive without some substantial change. However, it is still with the realm of the human agents to decide what these changes amount to. To outsiders there is nothing inherently appealing in a pile of compost. I remember thinking so while standing in a pile of it, trying to cover it up with a tarp to shield it from the winter rain. But, as a source of fertility and life for the fields, it is neither lukewarm, nor ignoble; rather it is the opposite of sterile. It is through this opposition that it enters into the symbolic universe as a significant place of liveliness, a place where the life forces flourish.

The phenomenology of spirit

The process of compost is here seen as an alchemical process. A lower material goes in and a higher material comes out at the end. One might be tempted to se it's transition in light of Van Genneps famed rites of passage (Gennep 1960), as it is indeed in a process of liminality. However the keen interest in it did not bear witness of the clearly marked separation usually considered a part of this process. Rather its liminality was a source of great interest as it was a

window into the transition of material and the process of alchemy. One of the vineyards I visited for my field survey had just that, a window, mounted in their compost-pile so as to allow one to see into the pile and observe how far the process had come. The source of this interest stems from the amount of liveliness in the compost-pile. As I touched upon in the previous chapter, a higher form of perception is needed to truly approach the spirit in nature. And when talking about liveliness, these aspects come into play. Sensing liveliness entails more than just observing the diversity of animals and the abundance of food. It entails sensing a more subtle aspect of the word, the cosmic energies of the "life forces". Questioning John about these life forces I once again encountered the prejudice that follows with being a "reductionist scientist". Saying that I did not understand how the visible and the invisible life forces interacted I was told that I was unable to "Because you are a scientist".

We got into talking about this after we had deposited a pile of branches in a row running along the field by his house. The pile of branches stretched almost halfway from the barn to the main road, a total of some 20 meters. He told me that it was to be a part of a hedgerow and that it was intended to be a dwelling for mice, birds and other small animals. More than that, it was a perimeter, or a "membrane". When describing it, he made reference to the hedges in the British countryside, saying that they didn't just serve to separate the landscape into smaller parcels. Such "membranes" also serve as amplifiers of liveliness. "If you had an instrument that could measure life energy, it would be showing a lot higher readings here, inside this membrane, than outside it." John would say, adding that he did not see any purpose in making such an apparatus, as the human body was able to sense the difference once properly attuned. This attunement became a topic when people visited the farm. When talking about the influence the place, in its liveliness, might have on visitors, John expected a very vide range of responses. Some, he suggested would immediately see that the place was different and it would lead to a change in their life. Others might not see it at first, but only later come to understand that they had experienced something unique. Perhaps when faced with a similar experience later in life.

Walking around the Grata ranch, observing the rich wildlife is something else than walking along the seemingly endless geometrical rows of orchards in the central valley. Eating living food, rather than chemically sterilized food, as well as farming a living field rather than a chemically controlled one, he said was connecting us to the earth. The buzzing of insects and the cooing of quail all aid in making the experience categorically different. As Ingold

observes, the taskscape, and thus also the landscape, necessitates agents "who reciprocally 'act back' in the process of their own dwelling" (Ingold 2000, 199). In the vineyard these interweaving lines of engagement are easily observed. This in itself then is nothing out of the ordinary. However, as Belden Lane observes, "sacred space is ordinary place, ritually made extraordinary" (Lane 2001, 16). In understanding this process, she warns against both a constructivist and a essentialist understanding of sacred place, as neither can approach the intensity of experience attached to such places. Instead she contends, drawing upon Paul Ricouers hermeneutics, that this process must be understood through the dialectic of nature in culture. Translate into the nomenclature of the understanding of material culture I here draw upon, I take this to mean that both the sensory perceptions of a place full of life, and the concept of nature as sacred play together in bringing about an enlivened world to the higher forms of perception.

As I elaborated upon in the previous chapter, sensing the "life in the field" entails more than just observing the plurality of animals and the abundance of food. It entails sensing a more subtle aspect of the word, the cosmic energies of the "life forces". These life forces are also increased and improved by introducing animal and plant diversity to the landscape, and through their reworking of it. Alchemy is observed, as the decaying of one matter becomes the growth of another. In this we see the fluidity and mobility of substances. The point of this chapter has been to show how this decay is understood through the concept of alchemy, and it's corollary: *animal impact* and *becoming*. The point of this has been to show that the meshwork is far from value-neutral. The desired biodiversity is invited to keep the undesired out. All these observation on the life on the ranch and the ways in which it helps shape the landscape and taskscape go into making it a place; A place distinguishable from all the other places around it where a new world might be gleamed. But to truly grasp this new world we need to go one step further; we must consider one more layer of the making of place. As the emphasis put on seeing the spirit in the field in the previous chapter indicated, there is more to the landscape than just the experience of diversity. Nature is also suffused with spiritual energies and cosmic impulses. In the next chapter I turn towards these, to see how the processes of becoming, discussed above, are controlled and interpreted.

5

The making of a sacred agriculture

The enchantment of becoming in biodynamic agriculture

> Were I called on to define, very briefly, the term art, I should call it the Reproduction of what the senses perceive in nature through the veil of the mist.
> - Edgar Allan Poe

Six days before I left the Grata ranch and ended the participatory part of my fieldwork, there was an annular eclipse of the sun. The Grata family got together, bringing wine beer and food, out in one of the vineyards to watch it. It was a warm day in early summer but as the moon passed across the sun, a breath of cold air rushed through the valley. Some 90 percent of the sun was obscured, and in the diming light, some said nature seemed to hold its breath. The turkey vultures, that ceaselessly circled the valley in search of prey, disappeared having lost the hot updrafts they had been riding. In the shadow of the leafing vines, a myriad of small crescents could be seen as the cracks in the leaves turned into little pinhole cameras. When I two weeks later was walking around San Francisco with a welding-glass observing a Venus-passage, I reflected on how oblivious most people were to the astronomical event that transpired right over their very heads. It brought me back to some of the conversation I had the day of the solar eclipse. Thomas thought that if you live in a city, you might not notice such an eclipse at all unless somebody told you about it; much less a Venus-Passage. It seemed hard to imagine with the drastic diming of the light and the rush of cold air I felt out there in that field. What's more, there was talk of all the subtle influences such events have on people. Before the eclipse I had been feeling uneasy and losing sleep. On mentioning this to John he told me "There is a uncertainty in nature during a solar eclipse. It's perfectly normal, but you should try not to do to much". Shortly after, Chosovi speculated that when we lived closer to nature, we probably were more attuned to these subtle changes in nature, and in ourselves.

From beginning to end of my fieldwork, astrology was a part of everyday conversation. The archetypes that shape the growth of the plants, discussed in chapter 3, while not astrological phenomena themselves where seen to be radiating from beyond the furthest stars. Similarly

the stars influence growth, and as shown in chapter 4, the *Stella Natura* planting calendar was consulted to determine at what time the stars would be "right" for doing certain tasks. It has been shown that the spiritual aspects of the world are not always easy to grasp with ones senses. Doing so requires training. Although sensing liveliness and observing the gestures of plants are practices as exercises, there is one more common way of observing the workings of the spiritual aspects of nature, and of the moon and stars. This chapter continues the discussion on the mutability of materials by examining the ritual purpose and the function of the biodynamic compost preparations and field-sprays. As mentioned in the introduction, the preparations are significant part of attaining biodynamic certification. They are also, as we shall see, the aspect of biodynamic agriculture subject to some of the most intense criticism, due to their esoteric nature. In my experience, although the application of the preparations are awarded a large role in both the literature and the daily discourse of biodynamic agriculture, they plays a fairly limited part as far as day to day agricultural labour goes. Much more time is spent cultivating, watering, and plowing than on spraying preparations and inoculating compost piles. In the following I will argue for an understanding of the biodynamic preparations, understood here as a form of garden magic, the type of magic that deals specifically with the growth of plants. With it being both spiritual and practical, John would say that:

> *Biodynamic agriculture is an esoteric science. But like most of the occult, it is not "cut and dried". It works, but it is not finished so to say. There is room for it to grow. The benefit is that it actually works, as opposed to reductionist science, which only seems to work so to say.*

This allows for it to be science of the spiritual. Steiner built this approach on the theory of a supersensory world, "*higher"* than the one we perceive of which we can only have limited knowledge. Given the controversy around the preparations and their role in biodynamic agriculture[10], I approached John at the end of my stay with the question of whether or not he would call the preparations magical. When first mentioning magic, John became apprehensive. Although he would use the term "magical" himself, both L and most other biodynamic farmers resented having their practice labeled as "magical", indicating that it devaluated their practice and made it seem unscientific.

Garden magic, and magic in general, is a phenomenon that figures prominently in the anthropological literature tracing back to the very dawn of the discipline with James Frazer's

Golden Bough (Frazer 2009) and Bronisław Malinowski's *Coral Gardens and Their Magic* (Malinowski 1935). Garden magic, and the corollary magical gardens, have in the history of the discipline been understood in light of their social functions (Malinowski 1935), as forms of symbolic control (Lienhardt 1961) and as metaphoric mediation (Sørum 1990). In common, most of this early literature was based on the dichotomy between magic and science, considering magic to be either a primitive form of science; One based on false interpretation of concrete phenomena (see Greenwood 2000, 40). Here I will argue for a more engaged approach to magical rites, one drawing on the discussion of materiality and perception from the previous chapters. As magical formulas, the nine different biodynamic compost preparations serve different functions, but all are intended to influence the becoming of the plants in the field they are applied to. Put simply, the preparations can be seen as enchanting the landscape in two ways. First by telling the plants how to take up certain nutrients. This is reminiscent of Gell's interpretation of the magic rite as doing little more than "identifying the activity which is being engaged in and defines a criterion for 'success' in it" (Gell 1988, 8). However, that would be favoring a western rationalist metaphysics, saying that it is "as if" the preparations give instructions. Through their spiritual and animist properties they are understood to truly give such instructions. Thus, we might see that their function in the environment becomes that of a practical tool. Their social function thus resembles further that of the embedding of skills in the landscape, discussed above. We might also come to see this as a process similar to the Heidegerian "naming" that James Weiner describes among the Foi people of New Guinea, a process through which the world is humanized and historized (Weiner 2001). As we shall se, the preparations function as naming by bringing aspects of the spiritual landscape close enough to the senses to be observed and thus made socially significant. Thus, they help in labeling, or eliciting, the invisible sacred landscape.

Not content with the way the preparations are understood to function, the following is intended to approach the preparations efficacy though a fairly recent addition to the anthropological literature on magic. In her most recent work *The Anthropology of Magic* Susan Greenwoods (Greenwood 2009) notes that magic, although holding an important position in anthropology tends to be regarded as an inferior form of science. Breaking with this she calls for magic to be studied as a discrete aspect of human consciousness. Primarily she argues we must turn away from merely studying the sociological and psychological effects of magic, and that the experience of magic needs to come in from the cold

(Greenwood 2009, 157). Drawing on the two previous discussions, this chapter therefore seeks to continue my exploration of the experience of biodynamic agriculture. To do so I will explore how the emergence of the material substance preparations is experienced, and how they work in constituting sacredness in landscape and in agriculture.

Becoming and transformation

I had my first encounter with the preparations early in January. One evening, L was sitting by the fireplace cleaning small strips of sinewy-looking flesh. Upon asking, he told me that it was a small batch of stag's bladders he had procured in order to make the following years *502*. Sitting by the fireplace, he cleaned the bladders of excess meat and fat, and then inflated a small balloon inside them before hanging them up to dry. Shortly after, the small cluster of stag's bladders hung from nails in the ceiling surrounding the fireplace. The where left there to dry, and then frozen, awaiting the time in fall when John would fill them with the flower-heads of yarrow and bury them in the ground. Like the 502, most of the preparations are founded around the decaying of one material substance and it's *becoming* into a new one. The term becoming, as it has been explained in the previous chapter entails both decay and growth at the same time, implying that the substance was in an active state susceptible to impulses from the cosmos. Each of the nine preparations that make up the standardized corpus consists of a substance that is transformed. Most do so within something that gives it form. The substance that goes through the transformation is in the case of the: *500* cow-dung, in *501*: quartz crystals and in the rest of the cases plant matter. These preparations were all developed by Steiner with an European flora in mind. Fortunately all the necessary plants, namely yarrow, chamomile, nettle, dandelion, valerian, (horse tail) and oak bark could be grown and harvested on the ranch. The substance is fermented in the soil approximately half a year, most of them contained within a membrane of some sort. *500* and *501* are stored in in cow horns, *505* in the skull of a domesticated animal, *506* in a cow's mesentery and *502* in a stag's bladder (see appendix for an short reference guide). Due to the diversity of domestic animals on the Grata ranch, cow-horns and cow-skulls are fairly easy to get a hold of. Still, the quantities required to produce enough could be problematic. Most farms that make their own preparations have to purchase some of these containers from a local dairy farm. John was fairly self-sufficient as far as skulls go, slaughtering one cow and a few goats each year. Cow horns needed to be bought elsewhere; jus as cow-dung had to be supplied for compost.

Getting the stag's bladder seemed the most challenging, and having to be gotten by hunting or from friends who hunted stags.

According to John the becoming of the preparations is intimately connected to the rhythm of nature, therefore they are only handled during certain parts of the year. Most of the preparations are buried in autumn when the life forces are receding into the earth and exhumed in spring when the life forces are emerging from the earth. While buried the substance that become the preparation is influenced by cosmic energies, channeled through the form they are put in and strengthened by the membrane around it. This creates a radically new substance that is more than the substance and more than the form. The quality of the substance and the membrane play a large role in the quality of the final product, but the ultimate source of the preparations efficacy is impulses gathered from the cosmos. So how are we to understand these cosmic impulses that biodynamic farmers rely on? Ingold brings this theme up in his essay "Materials against materiality" by asking where the sun, the moon and the stars are to be experienced in the material world. He states that they cannot be found within Christopher Gosden's dual approach to the material world as composed of artifacts made by man and the landscapes from which such things are carved (Ingold 2011, 21). Here I argue that the moon and stars play a pivotal role in the materiality, and that they are perceived through it. Through the preparations place in the landscape and relation to cosmic forces these invisible impulses become part of the landscape. After the transformation is complete, applying the preparation ads the becoming embedded in the preparation to the becoming of the cultivars. But before we get into this, let us continue our examination of the earthly substances a bit further.

As with most other supplies for the farm, getting as much of these resources locally was preferred. This emphasis on localism might be a trait particular to American biodynamic agriculture. The lack of good ethnography on biodynamic agriculture in Europe however makes this hard to verify. In Brendbekkens study of a biodynamic development-project in the Dominican Republic, the European biodynamic farmers who run the project import all the preparations from Europe and distribute them among the farmers there, as many of the resources are not available locally (Brendbekken 2003, 37). John was involved with a trial-farm trying to develop biodynamic farms in Costa Rica. He, and his associate Mathias B. spoke at lengths about trying to find plants that had a similar function or gestures, as the ones Steiner prescribed, thus adapting the preparations to the natural flora of the region.

The use of animal parts, and the significance of decay in the production of the preparations is one reason why many farmers have come to be rather secretive about their use. Even though they are never omitted in accounts of what makes biodynamic agriculture different from other types of agriculture, the way they are made is often downplayed. As John was exhuming the preparations in May he had a group of musicians living with him that had just given a benefit concert on the ranch. They where idling around the house as we were digging up the preparations. As we were exhuming the cow-horns with the 500, John invited them over to see what we were doing, and told them about biodynamic agriculture and how the preparations functioned. When we got to digging up the 505, oak bark in the skull of a domesticated animal, he insisted we should not show that to the musicians, as they might think he had "gone too far" and that he was "weird". His apprehension seemed valid as the skull had an intense smell of ammonia, a byproduct of the anaerobic decomposition it had gone through, and even after a winter in the ground it still had some decomposed flesh on it. The oak bark inside is kept within the part of the cranium that housed the brain and is surrounded by the meninges[11]. So upon cracking the skull open, the substance had the distinct shape of the animal's brain. The oak bark-prep, often considered the most special of the preps, due to the use of the recognized "potency" and relative rarity of the skull. Still, the fact that it is buried in the skull of a domestic animal is thought to put some people off. Like the compost discussed in the previous chapter, it would appear unappetizing to outsiders, but due to its intense symbolic value this was not noted upon by John or others. Thomas in particular told me that he avoided talking about the use of animal parts in the preparations when giving talks about biodynamic agriculture. He, and other I spoke to had also taken an interest in finding ways of making the preparations without the use of animal parts.

Another common argument against biodynamic agriculture is that the preparations are added to the compost in such minute quantities that there is no way they can have any effect (See critics such as (Gorski 2007). When faced with such criticism, John and Thomas would argue that what this substance does, when it is distributed in the field, is not to deliver sustenance to the plant, but a message. This message is intended to help the plant do certain functions associated with the function of the horn and the dung. Verifying their efficacy through conventional agricultural research has proven to be difficult. Although John Reganolds survey of the scientific, peer-reviewed literature on the subject by the mid 90s is mildly optimistic and encourages further research (Reganold 1995), no breakthroughs in explaining any

significant gain of biodynamic methods over organic seems to have been forthcoming. Studies by soil biologist indicate that there is little functional difference between the fertility of an organic and a biodynamic field (See Carpenter-Boggs, Kennedy, and Reganold 2000; Reeve et al. 2005). As we saw in chapter three, the cosmic impulses and energies were perceived to be impossible to measure expect though the human sensory apparatus. As such, I will argue that the application of the preparations makes a significant difference in the perception of the environment. So if this difference is not measurable through soil biology or chemistry, how are we to study it? Although, as we have seen, their material properties are of intense interest to biodynamic farmers, the preparation has little significance in its physical form. Its efficacy is gained from its ability to influence the formative forces of the matter around it. This is to say that even though one adds a minute amount of the actual preparations, the energetic imprint of the preparation will influence the whole pile of compost. This idea that small amounts of one substance can influence another matter is a characteristics shared with homeopathic medicine and what James Frazer, in his classic The Golden Bough, terms "sympathetic" or "homeopathic" magic (Frazer 2009, 76) Put short, this praxis can be analyzed as a form of magic founded on the idea that things that are similar influence each other across time and space, through some secret sympathy or flow of energy (See also Greenwood 2009, 46). The production and application of the preparations might be described simply in light of how they shape social life, as is the focus in Evans Pritchard's *Witchcraft, oracles, and magic among the Azande* (Evans-Pritchard 1976) However, there are some fundamental problems with this classical anthropological literature on magic, namely the aforementioned problematic distinction between magic and science.

Milton in discussing environmentalists relation to nature, stipulates that on the surface the two primary categories of such engagement is a scientific mode and a religious mode (Milton 2002, 8). She then posits that this distinctions is similar to that that between science and magic. Recounting Milton's discussion of the different demarcations between science, religion and magic, let alone giving a survey of this discussion stretching back to the writings of Malinowski is outside the scope of this discussion. For our purpose here, it should suffice to recount Milton's observation that traditional definitions have a tendency to classify science as rational, impersonal and to some degree constructed, while magic and religion is approached of as irrational, personal and natural or rather organic (Milton 2002, 23). At the end of her discussion, Milton concludes that all the arguments on which to make such a distinction can be contested and notes that a split between science and magic might only be

salient if it is followed by a split between human nature and human experience (Milton 2002, 25). Like Milton I oppose such a spilt as it would run directly counter to the fundamental ideas of the dwelling perspective that underlie my approach. This has led me to Susan Greenwoods work on magic. Greenwood, drawing on Gregory Bateson's work on the mind in nature contests that separating magic from science on such grounds merely reduces the scope of our inquiry. Going against the idea that magic and science are opposing in their regard to causality, rationality and efficacy, she posits that they are distinct and complementary activities of the mind (Greenwood 2009, 148). Rather than trying to grasp human experience with one side of the coin and disregarding the other, she opts for an approach she terms simply "not only but also", focusing on the unique aspects of the experience of magic as opposed to that of science (Greenwood 2009, 145). With this approach I intended to show that the use of the preparations, seen as a magical practice, plays a significant part not only in shaping social life amongst the farmers in my study and enchanting the biodynamic landscape, but also in shaping the perception of this selfsame landscape by lending causality to esoteric phenomena.

Transformation and enchantment

As spring was turning into summer, and my time in the field was drawing to an end, it came to the time of the year for applying the field sprays. At first it became a topic of conversation between John and the farm manager. As the vines started to bud Phillip observed that "everything is really starting to move a lot now". Later I arranged with Thomas to help him first apply the compost-preps to a couple of piles of compost he was making with manure from the goats and mixed green materials from the garden. This was planed a few days in advance, as he had to find a day in the *Stella Natura* that would be conducive for spraying. Six of the eight preparations (502-508) are added to compost-piles and distributed to the crops through the compost while the remaining two (500 & 501) are stirred out in water and sprayed on the fields. Many I spoke to told me that working with the preparations, at first, requires a certain "suspension of disbelief". I must admit to a certain hesitation when Thomas was showing me how to take small amounts of 501-506, pack them into small balls of composted goat-manure, stake up a hole in the compost pile and stick tem in there. Using a wooden stick, I made six holes piercing some 30 centimeters into the pile from opposing angles. Digging out some half-composted green dung from the side of the pile, I formed six small bowls, placed a teaspoon of one of the preparations in each and packed them into small balls. As Thomas had shown me, I reached into the holes and gently put one ball into each of

the holes, closing the hole up afterwards. The piles where lukewarm inside, squirming with worms and insects. 507 were then sprinkled on top of the pile. Thomas showed me how much of the concentrated valerian to ad to a big white bucket of lukewarm water (12 drops to 3 liters). The acidic smell of the fermented juice was intense, until he poured it into the water and started stirring it in. Sitting on a upturned white bucket Thomas demonstrated how to stir it, slowly at first and then with more and more force until a vortex appeared in the bucket and touched the bottom. Then, he would allow the vortex to spin freely for a few moments before forcefully stopping it. Afterwards I was put to sprinkle the mixture over the piles using a tuft of tall grass.

Preparing the 500 was done in a similar manner on the morning a few days later. Outside John's house he had a wine barrel placed under a tree. Jutting out from a branch in the tree he had a piece of rebar, pointing straight up. He had a pole, similar to an oar with a hook on the end that he suspended by hooking it on the rebar and used to stir. The barrel is filled with clean water and the transformed cow-dung that makes up 500 is mixed and then stirred for approximately an hour. Thomas and me made balls of 500, about the size of a fist, and mixed slowly into the barrel "so that every molecule comes in contact with the water". After having mixed the preparation in one alternate in stirring the solution clockwise and counter-clockwise approximately every 3-5 minutes. As when stirring the valerian juice, the point is to make a vortex in the fluid for then to rapidly break up the vortex which according to John causes cavitation in the solution. As I was stirring, John and Thomas where discussing different approaches to stirring. As they discussed, there are variations in ways one build the vortex, how long the vortex is sustained and the best ways of breaking it up. John told that he had learned his approach from a number of seasoned veterans in the field, and by experimenting with different approaches. After stirring for a few minutes, John remembered that he had his cellphone in his pocket and instructed us to put ours away as they emitted radio waves that would influence the solution. After this John and Cameron left me to stir in peace. I remember looking into the barrel at the swirling masses of water, feeling mildly dizzy and then getting a sensation that the water was in a sense "stirring back". After stirring for an hour, I helped Thomas filter out any chunks from the solution and pump the contents of the barrel over to a tank, mounted on a small trailer. Thomas hooked the trailer onto the back of the golf cart, He then drove of to sprinkle the Zinfandel block in the northern part of the vineyard, claiming that it was a field that had trouble ripening on time. According to the Stella Natura, it was a fruit day, so the grapes would benefit extra from being sprayed.

Later that day, Thomas commented on a book he had heard about postulating that the climate rather than getting warmer is getting cooler, Thomas suggested that if this was so, then they would need to spray more 501 to get their grapes to ripen on time. Spraying 501, ground quartz was the one that had the most intuitive sensory aspect. Ground quartz was referred to as solid light. Grinding it up and activating it through stirring was thought to make the light available for the plants. Walking out into a field that had been sprayed with 502, the light was claimed to be brighter and warmer. Thus, if the climate would cool, one could compensate by intensifying the light in the field. The preparations are meant to influence nature but their influence has limits. On our way out to do frost protection one night in April Theodore talked about the existence of a preparation that might be used to protect against frost. In addition to the preparations developed by Steiner, many try to develop their own preparations, or as I indicated above, adapt the existing preparations to local flora and fauna. As frost is a source of both economic and ecological strain[12] for grape farmers in northern California, this might have been very beneficial. Still, such a preparation was never sought out, and Theodore said that it probably would be to unreliable. Given the financial loss entailed with having a grapevine freeze, the preparations would not be safe enough. One of the farms I visited during frost-protection season also insisted upon the fact that just thinking that you can solve problems like frost with a preparation was counter to the idea of biodynamics. One is supposed to solve problems like frost with a multiplicity of tools, like creating air-drainage or increasing the heat-retention of the soil, rather than just mixing up some concoction and spraying it. Having seen how the preparations are interacted with during stirring an application to compost piles we might now turn from direct experience of the preparations themselves to how they are perceived in nature.

In conversation with a group of other biodynamic farmers during a conference, John described the way he treated his farm as a sort of dynamic artwork. Farming and gardening, he argued, should ideally be an ”intuitive and creative art form”. This he concluded with the observation that farming is supposed to be agriculture, putting emphasis on the pronunciation of culture, so as to say that it is more than a form of production, it encompasses a way of living and a way of relating, both to nature and other people. We have seen in the previous chapter how the landscape is shaped through skilled practice and through animal impact. In Gell’s writing on the enchantment of art, he states that the power of an artwork resides in the symbolic processes they provoke in the beholder (Gell 1992, 48). If we then take the farmer

to be the painter of the landscape, a brief reduction from the complexity of the dwelling perspective, this forms one perspective on how to understand the preparations efficacy. As Gell put it, "the occult power" of the painter arises from the way the artwork is brought about. "It is the way an art object is construed as having come into the world which is the source of the power such objects have over us – their becoming rather than their being" (Gell 1992, 46). In reference to the power of the artist, Gell considers the prow-board of the Trobrinad Kula boats. Gell shows that the efficacy of the prow-boards is not inherent in any aspect of their patterns, but rather in the beliefs concerning their patterns. "Without the associated magical ideas, the dazzlingness of the board is neither here nor there"(Gell 1992, 46). Subsequently Gell argues the processes that gave rise to the enchanted artwork fundamentally condition its spectator. Thus we might understand the preparations to simply enchant the landscape, making it appear transformed.

However, I will argue, this is not the full potential of the preparations. By returning to the dwelling perspective, and Weiner's concept of naming, we might see how the preparations become a fundamentally conditioning aspect for perceiving the environment. As the tools of crafting the preparations, or the artwork, is shared openly among initiates the occult power rest not only in the hand of the preparation maker or the artist. The "dazzlingness" of the preparations emerge not only from its makers but from it's materiality and from the cosmos itself. Contrary to Gell's argument, the preparations do not obscure the creation of the landscape. Rather they elucidate a spiritual landscape through their becoming. To further examine this, let us therefore turn our gaze back to the way the preparations are constituted, and how their quality is measured.

Sacred geographies

Some indications of its efficacy can be observed in the substance of the preparation itself, but the most accurate way of determining its efficacy is applying the preparation to the landscape. John elaborated on this after he returned from a conference of preparation-makers, engaged in trying to find a language for how the preparations work. To test the other participants, he had brought along the decomposing contents of a hollowed out oak and presented it as 500. The participants at the seminar had all brought their own preparations and where comparing them, trying to determine the qualities that made some preparations more efficient than other. The blackish smudge John had brought got rated as one of the best 500s in the seminar. In a

discussion with other farmers, the session was likened to a baking competition where the contestants brought and compared brownies. John concluded that there is no directly sensible aspect of the physical matter of the preparation that could tell you if it were truly good or not. He insisted that one had to judge it's quality based on how it "interacted with the life forces". This could be seen over time in the field the preparations were applied to, or it could be examined when the preparations were exhumed. On two separate occasions I had the chance to participate in the exhuming of the finished preparations. This gave me the occasion to both participate in and closely observe the exhuming of the preparations. As Salomonsen rightfully suggests, this give access to very varying types of data when studying rituals and ritualistic behavior (Salomonsen 2004, 51). The first time was during the spring meeting of the BDANC-group. At this seminar a similar group to the one that attended the BDANC-seminar in January, a diverse range of young and older people split fairly evenly between men and women, both seasoned farmers and apprentices, had gathered at Fulcrum farm in the Nevada Foothills. They had come together for the weekend to have discussions, listen to talks and dig up the preparations that had been buried last fall by the leaders of the seminar. Digging up the preps was spread out over the course of the day and interspersed with breaks for lunch and a few lectures. During this seminar I went along with the group as we dug up the preparations, valuing observation over participation. Due to the size of the group it was hard to participate in the digging and evaluating.

Observation was also made particularly interesting here due the presence of apprentices. Several apprentices from biodynamic farms in the are had convened to learn about the preparations, and several seasoned farmers where there to share their knowledge. The description on how to make the preparations can be found in most any book on biodynamic agriculture and in the transcript of Steiner's agricultural course, the description of how to make and apply 500 occupies no more than one page. Upon asking what the best way to learn how to make the preparations was, John told me that he had begun experimenting on his own, but later had started studying at the Josephine Porter Institute, an institution dedicated to researching the production of better preparations. John thought it best to study with somebody who knew a lot about the preparations at first, but nothing could replace personal experience of making them over time, observing how different places make different preps. This resembles Willerslev's observation on the relation between intellectual culture end knowledge of spiritual matters among the Siberian Yukaghirs. In applying Ingolds dwelling perspective to experiencing spiritual phenomena, he argues that being in the world is what allows us to

afford meaning to it, not what he refers to as intellectual culture. In other words, he take it that abstract knowledge emerges from contexts of practical engagement (Willerslev 2007, 148). Although there was made reference to a large secondary literature on the subject, the significance was not in the written culture, but in the personal experience of the preparations.

Plate 4: Well transformed 500 and horn.

Throughout the day of the BDANC-seminar, the group moved around the few acres of farmland, from site to site to exhume the preparations that had lain buried over winter. Harold, a teacher at the Rudolf Steiner College in Fair Oaks and one of the people in the area with the most experience in biodynamic farming led the group in exhuming the preparations and answered questions from younger farmers. At each stop, a close circle would form around the people digging and the people at the back would crane their necks, trying to get a glimpse of the contents of the cow-horns and the other preparations, as they were uncovered. Harold and the other experienced farmers examined the preparations as they came out of the ground,

smelling, touching and rubbing the substances between their fingers, making assessments. The apprentices would do the same, mimicking and trying to sense the aspects of the preparation the more experienced farmers talked about. The presence of root activity, microbial life and the presence of earthworms inn the substance and in the ground where the preparations had been buried were observed to see if the preparations "interacted with the life forces" in the area. Harold said that they had used the same locations for most of the preps several years in a row, but some of them were beginning to become ineffectual, due to intense root-activity. This he suggested was a result of the preparations being buried there and thus enlivening the soil. To test the preparations when exhuming 500, the fermented cow dung, Harold took a few horns as they where dug up and banged them on the wheelbarrow to get the substance to loosen from the wall of the horn. The transformed dung, still holding the shape of the horn, dropped into his hands and he carefully observed it before showing the contents to the crowd. Displaying several examples he pointed out to everybody how the cow dung that had transformed well was black all the way through and covered with springtails, while those that had not transformed right where green on the inside or had earthworms in them. Even though some of them where described as not well transformed, they where not thrown away. Upon asking about this, I was told that the unfinished preparations would continue transforming if stored with the finished preparations.

The second occasion was about a month later at the Grata ranch. This time, it was only John, his grandson a Wwoofer and myself present when we exhumed the preparations. This gave me a chance to get much more hands on with the digging and an even closer assessment of the preparations. This time we also dug up all the preparations over the course of a couple of mornings. Just as they had been on Fulcrum farm, the preparations were spread out over a larger area, centering on John's house, the field and in the wetland by a neighboring pond. As we were digging, John's grandson Horus kept running around us and taking a strong interest in what we were doing. John had been making preparations for 20 years now and by most of the people I spoke to, he was held to be very knowledgeable. His preparations were in high regard. John's interest however was in Horus and the benefit he got from being around the preparations from such an early age.

Both at Fulcrum farm and on the Grata Ranch The 500 was buried in an open field with lots of life in the topsoil, while the oak bark was buried in an area with running water. In some cases, this led to some difficult in finding the place a preparation was buried. Most of the

places were marked with small stakes or rocks, although not perfectly accurately. While expanding a hole looking for one of the preps that had eluded our search, somebody mentioned the anecdote about the first time the preparations where made. This was shortly after the agricultural course and Rudolf Steiner had come to oversee the exhuming. Those who had buried them had forgotten to mark where they were buried, and spent the whole day digging up holes all over the farm. Then, just as Steiner was about to give up and leave, they found the place where the preps were buried. Despite this apparently being a story most of the seasoned farmers where familiar with, nobody seemed to keep actual maps of where they had buried their preparations. This seems related to the emphasis on embodied learning and the training of intuitive cognition as we saw in chapter 3. It particularly mirrors way the participants at the BDANC-seminar, and in particular the apprentices approached such seminars with open senses, and only rarely with notebooks.

Both these occasions highlighted the same aspect about the preparations, namely their relation to their to the local landscape. Material aspects of places figure both as sites of knowledge, predictive aspects of a good place to bury the preparations suggesting a developable skill (Ingold 2000, 190). They also serve as a method of troubleshooting errors when something goes wrong. When the preps are buried in the right place for the right amount of time the materials undergo a transformation. As Ingold observes when talking about substances that undergo transformation, they have done so, through their involvement with their total surroundings. The artifact that is the preparation enters into a wide "meshwork" of influences, and comes out changed. Further Ingold suggests that the transformation visible in materials are histories, rather than attributes (Ingold 2011, 32). If we accept this postulate we might begin to se how the transformation of the preparations tell tales of their greater surroundings.

We have seen that the different preparations have different functions and thus they are buried in places with different qualities. To garnish the needed effect from the environment and to avoid the preparations influencing each other's transformation they are often buried in different corners of the estates. We have also seen that best way of measuring the quality of the preparations is to se how they have interacted with their surroundings. Doing so John suggested involves observing the preparation as "a substance over time." In other words, applying the preparation, and observing it, as an influencing factor in the temporality and productivity of the landscape is the only way of testing it's worth. The preparation becomes part of the landscape by being enacted upon it either directly or through compost. Returning

to Ingolds concept of the meshwork, the preparations are influenced by the variety of the forces active in the *farm organism*. But, in addition to this, the preparations are formed by "archetypes the radiate towards us from beyond the farthest stars". These are the same archetypes that are seen to be shaping trees, plants and even human actions. The previous chapters have outlined ways of knowing these archetypes, such as pruning trees and the practice of imaginative cognition. The preparations constitute another way of understanding these archetypes and through them, knowing the spiritual nature of the world. and are in turn influenced, both by other substances, but also by the cosmic impulses.

It is these cosmic impulses that the preparations finally tell the story of. By observing the changes made to the preparation, one observes how certain familiar substances have interacted with the cosmic impulses. This in turn creates a possibility for a narrative on how these life forces, the spirits in the field, act. Subsequently the only other person than myself taking comprehensive notes during the exhumation of the preparations was, a young apprentice. Everybody else where observing and some were taking pictures. The important part was not getting all the words down, but to participate with mind and body and learn to situate skills within the landscape. In other words, experiencing the preparation in its relation to the place it was buried was regarded as far more important than being able to recount all the observations on when they had been buried.

An intimate immensity

This chapter has explored the production and use of the biodynamic compost-preparations and field-sprays in the light of the concept of garden magic. In the classical literature, it is held that magic is separated from religion by its social function. Durkheim claims that magic "does not bind its followers to another and unite them in a single group living the same life" like religion does. He claim that there is no such thing as a "church of magic" (Durkheim 2001, 43). It is in this regard however that the preparations are different in kind from the magic described by Victor Turner and Evans-Pritchard. In the context of biodynamic agriculture, the preparations are a significant source of social cohesiveness; Both by being significant for biodynamic farmers to distinguish themselves from conventional farmers, and by rendering a visible the esoteric aspects of nature. Magic is a tool both of saving the world from degradation and for experiencing it's sacredness. In Brendbekken's material from the Dominican republic, the preparations serve a much more pragmatic function in controlling the

dark magic that is thought to proliferate the region. This, as she describes is a context where to cosmological systems are brought into contact, vodou and anthroposophy. As Brendbekken observes, here the introduction of anthroposophy is the spiritualization of a already spiritual nature (Brendbekken 2003, 44). This is juxtaposed to the spiritualization of a elsewhere inanimate nature in my material. The preparations are perceived as an empirical site for the experience of the spiritual magic of nature. We have seen other ways of perceiving "the spirit in the field" and "liveliness" in the previous chapters, but the preparations are what makes Nicolas Joly, one of the most popular writers on biodynamic agriculture, write in his book *Biodynamic Wine demystified* (Joly 2008) that "Biodynamics is the first type of agriculture, at least for several centuries, to give back to cultivators the possibility of affecting plant behavior on a plane other than the physical –which only allows a limited potential for diversity"(Joly 2008, 111).

By taking a participatory and experience-based approach to magic, we might also begin to see what role the magic experience holds in relation to scientific understanding. To say that the bodily knowledge of the spiritual landscape discussed here is of any higher, more personal or more abstract kind than the one gleamed through the local knowledge gained from plowing, discussed in chapter three would be wrong. Rather, they are different but equal aspects of the experience of the landscape, knowledge's that are merely applied in different contexts. The field, both tilled with mindfulness, cultivated organically, kept diverse and enchanted with preparations manifests Greenwoods idea of "not only but also". It is not a magical enchantment that makes the grapes grow or ripen, but the enchantment helps guide the process along with the other practices. The knowledge of this magical influence shapes the perception of the field. As we have seen, Ingolds concept of taskscape describes how a place is perceived through the practices performed in it. If we bridge this concept to involve the whole meshwork within the taskscape, we can se that the enchanted landscape is crawling with spiritual processes.

It is through this evaluation and testing, through a focus on both receptivity and experience that the preparations are understood to disclose their true function. They work, as enchantments of nature by creating an alternative to conventional agriculture around which a social cohesiveness can form. They serve pragmatic functions in meeting the risk of changing climates and fluctuating weather. But at the core focus here, the experience of the preparations are a way of experiencing the magic of nature, the influence of the furthest stars

and the music of the spheres. In a sense they are an accurate way to disclose the "spirit in the field" to those who know how to see it. As such we can see the preparations as more than just a magical rite through which ordinary spaces are ritually made extraordinary as Lane suggests (Lane 2001). Rather, as the places are already sacred, it can be assumed that what the preparations succeed in doing is to make the sacredness of the landscape visible. It highlights the spiritual qualities of the field and gives a glimpse of the transformative powers of the cosmos.

6

The senses in sacred places

Concluding remarks on the phenomenology and community of sacred agriculture

"Out beyond ideas of wrongdoing
and right-doing there is a field.
I'll meet you there.
When the soul lies down in that grass
the world is too full to talk about.
Ideas, language, even the phrase "each other" doesn't
make any sense."
- Mevlana Jelaluddin Rumi

Mendocino, California's greenest wine region, still houses the boom-mentality so prevalent in the history of the state. Boasting both silicon valleys and silver screens, it's gold once lay hidden in the hills but now, to some, it is found in the progressive greening of its fields. The slow and steady focus on community and sustainability amongst its farmers has led the charge against the perceived depravity of conventional agriculture. But this boom is matched, as Joan Didion observes, by a Chekhovian sense of loss (Didion 2006). Both a loss of the original landscape of the Pomo Indian tribes, thought to live in harmony with a once abundant nature, and the loss of social cohesiveness in society at large, deemed largely a result of our separation from nature brought about by the intensification of agriculture. Among the steadily increasing diversity of certification-practices, not all hold the rigor of the biodynamic farm standard, and many fear that less demanding certifications such as the "fish friendly farming" certification erode their nomenclature. Andrew would lament that "Like, the word green. It no longer means anything. Organic agriculture is safe for now but it's really not a good term for what it describes, it's just that sustainable agriculture is becoming more and more diluted every day". The nostalgia for a landscape lost to urbanization is strengthened by the risk of losing what little is left. In a sense, it is as Tim Choy suggested: the rhetoric of endangerment is one of anticipatory nostalgia; the fear of losing something to dear to imagine life without (Choy 2011, 28). The same, however, can be said for other parts of life. We are living in a time in which biologist warns of the loss of biological diversity. What then of cultural diversity?

As a discipline we have, for the large part, thrown of the goal of the old "salvage anthropology". Having realized the fluidity of culture and its expressions, we are no longer scrambling to salvage what is being lost so it can find place, at least, in a museum. Although globalization does not threaten to make the world homogenous, there does seem to be a loss of nuances. The literature on resistance to globalization tends to focus on those most exploited. Little is spoken of the soft worded protest of those who form their opposition from within the system. Biodynamics I argue is such a process of opposing the western unequivocal ideology of growth. Not only protesting the uninhibited growth of agriculture into agribusiness, it also opposes the idea of limitless growth as a foundation of economy. Emphasis is put on things being human scale and serving human needs. More than just a process of healing the earth, biodynamics seems to create social cohesiveness by a generative process of elaborating place. As Keith Basso observes, adapting to modern times tends to imply adapting to modern ways of living. Even though this changes our narratives about ourselves and our environment there is little reason to believe that this means that we become, somehow, intrinsically disenfranchised from our surroundings. Nor should we fear that local narratives would be utterly lost to a global and postmodern narrative. There is however reason to be doubtful as Basso notes in the context of his apache Indians that "…surviving in the contemporary world requires the acquisition of contemporary skills. It is doubtful, however, that future generations of Apache people will ever device more striking ways to think about places – and by means of places to think about itself – than the one made known to me by the horseman Dudley Patterson" (Basso 1996, 86). Basso observes that even though the apache Indians he study are not losing their ability to understand their environment, the loss of myths and narratives handed down through generations means that the landscape they persist inn will be remarkably different from their ancestors, and perhaps not as elaborated. In such a world, a cultural process of elaborating meaning and supporting biodiversity such as biodynamic farmers do seems a very timely return to form.

If anthropologists no longer believe that cultures are being eroded and lost to time, our informants may still do so. Rather than accepting this loss they struggle for cohesiveness of their lifeworld, choosing to live, as Geertz asserts, in "the world around here". So, facing the threat of the "unsettling of America", should we really find it surprising that some grasp for the esoteric to found a meaningful relation to their environment? I have throughout this thesis argued that although understanding of Steiner's work and the tenets of biodynamic agriculture

might vary among its practitioners; the experience of that work is shared. As a social group, the biodynamic farmers in my study, rather than sharing a fixed set of beliefs shared a belief structure. Drawing on Smith, we might say they share a moral order, or a moral topography, that inspired by an idea of the intrinsic sacredness of nature. This moral order is then reinforced by a taught mode of experience that engages its practitioners with the cosmic impulses of the universe. Both the perception of the sacredness of nature rooted in concrete practices creates cohesiveness in the biodynamic community.

Therefore I have throughout this thesis based my observations on the immediateness of our environment. Through the attention to everyday experience that comes with the dwelling perspective I have attempted to show how perceptions and practice coevolve. What has emerged through this discussion is the significance of sensory engagement for understanding the link between cosmology and practice. The structure of this discussion has been to explore this question from three different angels; looking at the intersection between identity, materiality and ritual. Numerous potential angels still remain but we now come to the end of this particular inquiry. If anything, this prevalent focus on perception has given us a reason to be wary of representational ideas of nature. Nature, I suggest, is not a neutral space easily occupied by a social conventions and ideas. It resists brute categorization by changing surfaces and acting back. Thus, understanding the human place in the landscape entails both mapping out their ideas about the world, how the world responds to these ideas, and how the response is understood. I have explored this through religious experience of the environment, and the way the higher planes of nature manifest through tilling reaping and observing the fluctuating processes of becoming.

As posited in the introduction, there is a broad literature on religious sentiments and symbolism in contemporary environmental protection. The reasons for this have been speculated to be the therapeutic power of the rich and complex imagery of such practices, and the reaffirmation of commitment that comes with lengthy engagement with nature (Luhrmann 1993). Starting out this thesis, I brought up the postulate that the goal of biodynamic agriculture is “to give nature back to the gods”. Understood through the concept of intuitive cognition, alchemy and the elucidating power of the preparations, I will argue that this is not to be understood as a form of sacrifice. Rather, giving nature back to the gods is a way of describing the combined effort of these three projects, namely to experience the gradual transformation of substance from a lower to a higher etheric plane. If we take from Ingold that

people live in the world, not on it, then the historical transformation they bring is part and parcel of the world's transformation of itself (Ingold 2011, 47). What I have been trying to show here is how changes in skill grow into changes in landscape. The change in spirituality grows into a change in community. Social practices sediment into places their spiritual significance and is at the same time inspired by these same places. A place is at the same time a memento of the past and a potentiality of a future.

As such, Steiner's inheritance plays several different roles within this context of spiritual agriculture. It's a source of technical knowledge, a basis of identity and a way of looking. This thesis, although inspired by Malinowski's work on the garden magic of the Trobriand, has been more than "A study of the methods of tilling the soil and the agricultural rites of the Trobriand Islands" rewritten to a modern American context. Studying magical rites without the immediateness of dwelling risks missing the more subtle functions magic plays on the Grata ranch. The production that results from the diverse landscape and the localized skills that John practice involves much more than just the growth of plants. It involves the spirits that roam the fields and the impulses that guide the plants. With fermentation and decay being different, yet similar, manifestation of the same alchemical principle, I have come to regard becoming as the term through which to approach the materiality of the meshwork that my study attempts to grasp. Talking about becoming, in the light of such a definition of animism, puts agriculture in a new light. It forces us to think about the becoming of the soil, the becoming of the plants and the becoming of the animals as process of spirit. What is created, through the practice of biodynamic agriculture, is not only a more fertile landscape for growing vegetables. The landscape through its enchantment is made more fertile for the mind also. The fields are changed from mere sites of production to the manifestation of nature's divinity and the exuberance of its formative forces.

Appendix: Reference sheet to the preparations and their functions:

Preparations	Purpose	Contents	Application Method
500	Promotes root activity and stimulates microbiotic life in the soil	Cow manure in cow horn. Fermented over vintner under ground	Stirred into a barrel of water and sprayed on the soil
501	Enhances light metabolism of the plant and photosynthesis processes	Ground quartz crystals, mixed with rainwater and packed in a cow's horn. Buried in spring and dug up in autumn	Sprayed on the crop plants
502	Helps the plant make use of potassium and Sulfur	Flower heads of yarrow fermented in a stags bladder	Applied to compost
503	Helps the plant make use of calcium and nitrogen	Flower heads of chamomile fermented in the soil	Applied to compost
504	Helps the plant make use of iron and magnesium	Stinging nettle tea	Applied to compost
505	Helps the plant make use of calcium	Oak bark fermented in the skull of a domestic animal	Applied to compost
506	Helps the plant make use of silica	Flower heads of dandelion fermented in cow mesentery	Applied to compost
507	Helps the plant make use of phosphorous	Juice of valerian flower	Applied to compost
508	Used to cope with fungus diseases	Tea prepared from horsetail plant	Vineyard spray

Notes

[1] Both the name of the family, the family members and the valley has been anonymized. Due to the idiosyncrasies of the ranch, it is described as it is, with no changes being made expect names. This has been done after consulting with the family, and after evaluating the material presented here as not presenting an immediate risk to my informants. Other informants are referred to by position and social context. Notable public profiles are presented with full name.

[2] Anthroposophy is the philosophical direction started by Rudolph Steiner. Put shortly it postulates the existence of an objective and intellectually comprehensible spiritual world accessible to the senses through personal development.

[3] In 2004, Measure H was passed with the financial and administrative aid of the Grata Family. This made Mendocino the first county to ban the production and cultivation of genetically modified organisms.

[4] With whom I hade limited contact due to the language barrier.

[5] This choice of words should not be understood as reinforcing a distinction between artifacts and nature. The well-pruned tree is both, as is all matter as long as it is formed of some substance. The tree-sculpture is merely more transient, as wood decays faster than marble, than the Venus de Milo (Ingold 2012, 29).

[6] The distinction being that the lower plants have a vegetative mode of reproduction not needing seeds or spores (notably moss and ferns), while the higher plants have developed dedicated organs for reproduction. The lecture on the higher plant focused on flowers and grasses.

[7] One vocal critic of this part of Ingolds work is Daniel Miller. He criticizes Ingold for sticking with ”stone age” materiality in a ”plastic age”. By this he insinuates that Ingold is overly occupied by the authenticity of ”transforming nature” and that this particular perspective has no room for the consumption of industrially produced goods (Miller 2007, 26). As I in this chapter focus on ways of transforming nature in the context of agrarian

agriculture, this criticism does not strike the core of how I intend to apply Ingolds thinking, but it is worth further attention, that this thinking must be brought to a large array of materiality than what I concern myself with here.

[8] Both quotes the same line from Georges Batailles ”The History of Eroticism”, focusing on ”unstable fetid and lukewarm substances where life ferments ignobly.” The fear of these cumulates in the recognition that ”One day this living world will pullulate in my dead mouth” (quoted in Taussig 2009, 175). This recognition begets a mortal dread of the unstable. DeSilvey finds the decaying remains of a homestead full of such unstable and transgressive matter. Tausig finds it in the miasma of the bogs in his *Cocaine Museum*. Both take little heed to the cultural meaning of such places and substitute understanding for experience.

[9] For a more detailed account of the spread of phylloxera, known as “the great wine blight”, se George Ordish’s somber account of the spread of the bug, and its long-lasting effect on the world of viticulture (Ordish 1972).

[10] Books like the vine-journalist Katherine Coles Voodo Vintners: *Oregon’s Astonishing Biodynamic* Winegrowers (Cole 2011) receive mixed receptions among biodynamic farmers. Being presented as a curious and superstitious subculture goes against the self-perception of being the agent of a large agricultural revolution.

[11] Meninges: The membrane that surround the brain of the animal.

[12] A large number of vineyards use sprinklers to protect the grapes from freezing. By spraying water on the grapes, the water creates a protective sheet of ice that shields the grape. This requires large amounts of water and the drain on local watersheds during large frost-events can be potentially life threatening for marine life. This has in turn led to a large number conservation-projects and government control of the local watersheds, such as the “Fish Friendly Farming”, “certification program for agricultural properties that are managed to restore fish and wildlife habitat and improve water quality.”(Fish Friendly Farming® 2012).

References

Albanese, Catherine L. (1990): *Nature Religion in America: From Algonkian Indians to the New Age*. Edited by Martin E. Marty, *Chicago History of American Religion*. Chicago: The University of Chicago Press.

Barth, Fredrik (1969): "Introduction." In *Ethnic Groups and Boundaries: The Social Organisation of Culture Difference*, edited by Fredric Barth. Oslo: Universitetsforlaget.

——— (1999): "Comparative Methodologies in the Analysis of Anthropological Data." In *Critical Comparisons in Politics and Culture*, edited by John H. Bowen and Roger Peterson. Cambridge: Cambridge University Press.

Basso, Keith H. (1996): "Wisdom Sits in Places: Notes on a Western Apache Landscape." In *Senses of Place*, edited by Steven Feld and Keith H. Basso. Santa Fe: School of American Research Press.

Bergesen, Helge Ole (2000): "Steiners etterfølgere - subkultur eller motkultur." In *Fascinasjon og Forargelse: Steiner og Antroposofien Sett Utenfra*, edited by Cato Schiøtz and Peter N. Waage. Oslo: Pax Forlag.

Berry, Wendell (1977): *The Unsettling of America: Culture & Agriculture*. San Francisco: Sierra Club Books.

Bloch, Jon P. (1998): "Alternative Spirituality and Environmentalism." *Review of Religious Research* vol. 40 (1):55-73.

Brendbekken, Marit (2003): "Beyond Vodou and Anthroposophy in the Dominican-Haitian Borderlands." In *Beyond Rationalism: Rethinking Magic, Witchcraft and Sorcery*, edited by Bruce Kapferer. New York: Berhahn Books.

Brown, Vinson (1969): *The Pomo Indians of California And Their Neighbors*. Indian Creek Naturegraph Publishers Inc.

Carpenter-Boggs, Lynne, Ann C. Kennedy, and John P. Reganold (2000): "Organic and Biodynamic Management Effects on Soil Biology." *Soil Science Society of America Journal* vol. 64 (5):1651-1659.

Casey, Edward S. (1996): "How to Get from Space to Place in a Fairly Short Stretch of Time: Phenomenological Prolegomena." In *Senses of Place*, edited by Steven Feld and Keith H. Basso. Santa Fe: School of American Research Press.

Choy, Tim (2011): *Ecologies of Comparison: An Ethnography of Endangerment in Hong Kong*. Durham: Duke University Press.

Cole, Katherine (2011): *Voodoo Vintners: Oregon's Astonishing Biodynamic Winegrowers*. Corvallis: Oregon State University Press.

Connerton, Paul (1989): *How Societies Remember*. Cambridge: Press Syndicate of the University of Cambridge.

——— (2009): *How Modernity Forgets*. Cambridge: Cambridge University Press.

Degnen, Catherine (2009): "On vegetable love: Gardening, plants and people in the north of England." *Journal of the Royal Antrhopological Institute* vol. 15: 151-167.

Demeter Association USA Inc. (2010): “Biodynamic® Farm Standard”. [cited 01.08.12] Available from: http://www.demeter-usa.org/downloads/Demeter-Farm-Standard.pdf

DeSilvey, Caitlin (2006): "Observed Decay: Telling Stories with Mutable Things." *Journal of Material Culture* vol. 11 (3):318-338.

Didion, Joan (2006): *We Tell Ourselves Stories in Order to Live: Collected Nonfiction* Michigan: Knopf Doubleday Publishing Group

Durkheim, Émile (2001): *The Elementary Forms of Religious Life*. Translated by Carol Cosman. New. York: Oxford University Press.

EconPost (2011): "California economy ranking in the world" [cited 14.03.13] Available from: http://econpost.com/californiaeconomy/california-economy-ranking-among-world-economies.

Escobar, Arturo (1998): "Whose Knowledge, Whose Nature? Biodiversity, Conservation, and the Political Ecology of Social Movements." *Journal of Political Ecology* vol. 5.

Evans-Pritchard, Edward. E. (1976): *Witchcraft, oracles, and magic among the Azande*. Oxford: Oxford University Press.

Fish Friendly Farming® (2012) [cited 21.12 2012]. Available from http://www.fishfriendlyfarming.org/.

Frazer, James George (2009): *The Golden Bough: A Study of Magic and Religion*: The Floating Press.

Gatta, John (2004): *Making Nature Sacred: Litterature, Religion and Environment in America from the Puritans to the Present*. Vol. Oxford: Oxford University Press.

Geertz, Clifford (1973): *The Interpretation of Cultures: Selected Essays by Clifford Geertz*. New York: Basic Books.

——— (1996): "Afterword." In *Senses of Place*, edited by Steven; Basso Feld, Keith H. School of American Research Press.

Gell, Alfred (1988) "Technology and Magic." *Anthropology Today* vol. 4 (2):6-9.

——— (1992): "The Technology of Enchantment and the Enchantment of Technology." In *Anthropology, Art and Aesthetics*. edited by Jeremy Coote and Anthony Shelton. Oxford: Clarendon.

Gennep, Arnold Van (1960): *The Rites of Passage*. Chicago University of Chicago Press.

Giddens, Anthony (1991): *Modernity and Self-Identity: Self and Society in the Late Modern Age*. Cambridge: Polity Press.

Goffman, Erving (1959): *The Presentation of Self in Everyday Life*. New York: Doubleday.

Gorski, David (2007): "Your Friday Dose of Woo: Old MacDonald had a farm, ee-i-ee-i-o, and on his farm he had some woo, ee-i-ee-i-o." [cited 07.02 2013]. Available from http://scienceblogs.com/insolence/2007/02/23/your-friday-dose-of-woo-old-macdonald-ha/

Greenwood, Susan (2000): *Magic, Witchcraft and the Otherworld. An Anthropology*. Oxford: Berg.

——— (2009): *The Anthropology of Magic*. Oxford: Berg.

Guthman, Julie (2004): *Agrarian Dreams: The Paradox of Organic Farming in California*. Berkley: University of California Press.

Ingold, Tim (2000): *The Perception of the Environment. Essays on Livelihood. Dwelling and Skill*. London and New York: Routledge.

——— (2011): *Being Alive: Essays on Movement, Knowledge and Description*. London: Routledge.

——— (2012): "Toward an Ecology of Materials." *Annual Review of Anthropology* vol. 41.

Jenkins, Richard (2008): *Social Identity: Third Edition*. Edited by Peter Hamilton, *Key Ideas*. London: Routledge.

Johnston, Josée, and Shyon Baumann (2007): "Democracy versus Distinction: A Study of Omnivorousness in Gourmet Food Writing." *American Journal of Sociology* vol. 113 (1):165-204.

Joly, Nicolas (2008): *Biodynamic Wine, Demystified* San Francisco: Wine Appreciation Guild.

Kalland, Arne (2004) "Introduskjon: Om holdninger og handlinger med hensyn til naturen." *Norsk Antropologisk Tidsskrift* vol. 15 (1-2).

Kirksey, S. Eben, and Stefan Helmreich (2010): "The Emergence of Multispecies Ethnography." *Cultural Anthropology* vol. 25 (4):545-576.

Klonsky, Karen (2010): "A Look at California's Organic Agriculture Production." *ARE Update* no. 14:8-11.

Kull, Kalevi, Thoomas Kukk, and Aleksei Lotman (2003): "When culture supports biodiversity: The case of the wooded meadow." In *Imagining Nature: Practices of Cosmology and Identity*, edited by Nils Bubandt Andreas Roepstorff, Kalevi Kull. Århus.

Lane, Belden C. (2001): *Landscapes of the sacred: Geography and Narrative in American Spirituality*. Baltimore: John Hopkins University Press.

Lienhardt, Godfrey (1961): *Divinity and Experience: The Religion of the Dinka*. Oxford: Oxford University Press.

Lorand, Andrew (2006): "Biodynamics Between Myth and Reality." In *Farmer John's Cookbook: The Real Dirt on Vegetables*, edited by Farmer John Peterson. Layton: Gibbs Smith.

Luhrmann, Tanya M. (1993): "The Resurgence of Romanticism: Contemporary Neopaganism, Feminist Spirituality and the Divinity of Nature." In *Environmentalism: The View From Anthropology*, edited by Kay Milton. London: Routledge.

Lyson, Thomas A. (2005): "Civic Agriculture and Community Problem Solving." *Culture and Agriculture* vol. 27 (2):92-98.

Malinowski, Bronislaw. (1935): *Coral gardens and their magic: a study of the methods of tilling the soil and of agricultural rites in the Trobriand Island*. London: Allen & Unwin.

Manning, Richard (2004): *Against the Grain: How Agriculture Has Hijacked Civilization*. New York: North Point Press.

Mauss, Marcel (1973): "Techniques of the body." *Economy and Society* no. 2 (1):70-88.

McDonald, James H. (2005): "Keeping Culture in Agriculture: A Call for Discussion." *Culture and Agriculture* vol. 27 (2):71-72.

McLuhan, Marshall. (1994): *Understanding Media: the Extensions of Man*. Cambridge: MIT Press.

Merleau-Ponty, Maurice. (2002): *Phenomenology of Perception*. London Routledge.

Miller, Daniel (2007): "Stone Age or Plastic Age?" *Archaeological Dialogues* vol. 14 (1):23-27.

Milton, Kay (2002): *Loving Nature. Towards an Ecology of Emotion*. London: Routledge.

Moberg, Mark (2010): "A New World? Neoliberalism and Fair Trade Farming in the Eastern Caribbean." In *Fair Trade and Social Justice: Global Ethnographies*, edited by Sarah Lyon and Mark Moberg. New York: New York University Press.

Myers, David (2002): *Intuition: Its Powers and Perils*. New Haven: Yale University Press.

Nazarea, Virginia D. (2006): "Local Knowledge and Memory in Biodiversity Conservation." *The Annual Review of Anthropology* vol. 35:317-335.

Norbye, Anne-Katrine Brun (2010): "Eating Memories. A Taste of Place." In *Reveries of Home: Nostalgia, Authenticity and the Performance of Place*, edited by Solrun Williksen and Nigel Rapport. Newcastle upon Tyne: Cambridge Scholars Publishing.

Okely, Judith (2001): "Visualism and Landscape: Looking and Seeing in Normandy." *Ethnos* vol. 66 (1):99-120.

Ordish, George (1972): *The great wine blight*. Dent: Cornell University Press.

Ortner, Sherry B. (1973): "On Key Symbols." *American Anthropologist* vol. 75 (5):1338-1346.

Paull, John (2011): "Biodynamic Agriculture: The Journey from Koberwitz to the World, 1924-1938." *Journal of Organic Systems* vol. 6 (1):27-41.

Paxson, Heather (2008): "Post-Pasteurian Cultures: The Microbiopolitics of Raw-Milk Cheese in the United States." *Cultural Anthropology* vol. 23 (1):15-47.

Pfeiffer, Ehrenfried (2004): "Preface." In *Agriculture Course: The birth of the Biodynamic Method. Eight*, edited by Rudolf Steiner. London: Rudolf Steiner Press.

Phillips, Lynne (2006): "Food and Globalization." *Annual Review of Anthropology* vol. 35 (1):37-57.

Pink, Sarah (2009): *Doing Sensory Ethnography*. London: Sage.

Reeve, Jennifer R., Lynne Carpenter-Boggs, John P. Reganold, Alan L. York, Glenn McGourty, and Leo P. McCloskey (2005): "Soil and Winegrape Quality in Biodynamically and Organically Managed Vineyards." *American Journal of Enology and Viticulture* vol. 56 (4):367-376.

Reganold, John P. (1995): "Soil quality and profitability of biodynamic and conventional farming systems: A review." *American Journal of Alternative Agriculture* vol. 10 (1):36-45.

Reilly, Thomas E. (2008): Ground-Water Availability in the United States. In *Geological Survey Circular*. Denever: U.S. Geological Survey.

Roepstorff, Andreas, and Nils Bubandt (2003): "General introduction: The critique of culture and the plurality of nature " In *Imagining Nature: Practices of Cosmology and*

Identity, edited by Andreas Roepstorff, Nils Bubandt and Kalevi Kull. Aarhus: Aarhus University Press.

Rogers, Heather (2010): *Green Gone Wrong: Dispatches from the Front Lines of Eco-Capitalism*. London: Verso.

Rogers, Susan Carol (1987): "Mixing Paradigms on Mixed Farming: Anthropological and Economical Views of Specialization in Illinois Agriculture." In *Farm Work and Field Work: American Agriculture in Anthropological Perspective*, edited by Michael Chibnik. Ithaca: Cornell University Press.

Salisbury, Roderick B. (2012): "Engaging with Soil, Past and Present." *Journal of Material Culture* vol. 17 (1):23-41.

Salomonsen, Jone (1991): *Når gud blir kvinne: Bland hekser, villmenn og sjamaner i USA*. Oslo: Pax Forlag.

——— (2004): "Methods of Compassion or Pretention? The Challenges of Conducting Fieldwork in Modern Magical Communities." In *Researching Paganism*, edited by Jenny Blain, Douglas Ezzy and Graham Harvey. Walnut Creek: Altamira Press.

Scott, James C. (1998): *Seeing Like a State. How Certain Schemes to Improve the Human Condition Have Failed*. New Haven: Yale University Press.

Smith, Christian (2003): *Moral, Believing Animals*. Oxford: Oxford University Press.

Steiner, Rudolf (2004): *Agriculture Course. The Birth of the Biodynamic Method*. London: Rudolf Steiner Press. Original edition, 1958.

Stewart, Alex (1998): *The Ethnographer's Method. Qualitative Research Method Series* vol. 46. Edited by Marc L. Miller, Peter K. Manning and John Van Maanen. Thousand Oaks: Sage Publications.

Stoller, Paul (1989): *The Taste of Ethnographic Things: The Senses in Anthropology* Philadelphia: University of Pennsylvania Press.

Storl, Wolf D. (1979): *Culture and Horticulture: A Philosophy of Gardening*. San Francisco: Bio-Dynamic Farming and Gardening Association.

Sørum, Arve (1990): "Magic Gardens as Symbolic Production." In *The Ecology of Choice and Symbol: Essays in Honour of Fredrik Barth*, edited by Reidar Grønhaug, Fredrik Barth and Gunnar Haaland. Bergen: Alma Mater.

Taussig, Michael (2009): *My Cocaine Museum*: University of Chicago Press.

Taylor, Bron (2010): *Dark Green Religion. Nature Spirituality and the Planetary Future*. Berkley: University of California Press.

Trubek, Amy B. (2008): *The Taste of Place: A Cultural Journey into Terroir*. University of California Press.

Weiner, James F. (2001): *Tree Leaf Talk: A Heideggerian Anthropology*. Oxford: Berg.

White, Lynn (1967): "The Historical Roots of Our Ecologic Crisis." *Science* no. 155.

Willerslev, Rane (2007): *Soul Hunters: Hunting, Animism, and Personhood Among the Siberian Yukaghirs*. Berkley: University of California Press.

Wilson, James E. (1999): *Terroir: The Role of Geology, Climate, and Culture in the Making of French Wines*. Berkley: University of California Press.

Yanagisako, Sylvia J. (2002): *Producing Culture and Capital: Family Firms in italy*. Princeton: Princeton University Press.

Zucca, Gary, David Smith, and Darryl Mitry (2009): "Sustainable viticulture and winery practices in California: What is it, and do customers care?" *International Journal of Wine Research* vol 2: 189–194