A person in silhouette is working with a large wooden barrel and a tall tripod structure in a field at sunset. The person is standing next to the barrel, which is supported by a tripod made of three long wooden poles. The sun is low on the horizon, creating a warm, golden glow. The background shows a vast, open field with some trees and hills in the distance. The overall scene is peaceful and evokes a sense of traditional, natural practices.

Biodynamic Preparations across the World

Understanding challenges, alternative practices and new meanings

TABLE OF CONTENTS

INTRODUCTION	2
Aims of the Study	
BIODYNAMIC PREPARATIONS ACROSS THE WORLD	5
Understanding Challenges and Local Contexts	6
Experiences with Alternatives & other Preparations	9
Preparations 500 to 508	
Potentized Preparations	
Vegan Substitutes	
Other Preparations	
The Quality & Effects of the Preparations	25
How is Quality developed and understood?	
The Role of the Person	
Perceiving the Effects	
Different Meanings and Paths	31
The Preparations as a Path of Individualization	
The Preparations as a Unifying Impulse	
LOOKING TO THE FUTURE AS AN INTERNATIONAL MOVEMENT	35
Strengthening the Foundations and the Path to Alternatives	
Collaboration and Community Building	
ACKNOWLEDGEMENTS	39



INTRODUCTION

THE BACKGROUND

In the 100 years since Rudolf Steiner's first impulse, the biodynamic movement has spread throughout the world. Today there are 46 biodynamic associations in 36 countries, which form the Biodynamic Federation Demeter International.

100 years after Rudolf Steiner laid the foundations for the biodynamic impulse in the Agricultural lectures, biodynamic practitioners all over the world continue to learn about the preparations and find their own way of working with them in the face of very different realities and challenges. How to understand, develop and use the biodynamic preparations in different cultures and geoclimatic regions, compared to the Central European reality for which the original indications were given, is a question that challenges many farmers within the movement today.

One way to understand and approach the complexity of working with preparations worldwide is from a purely pragmatic and material point of view, and to limit the discussion to how the ingredients of the various preparations - which are not available in all regions - can be made available to everyone so that the preparations can be developed as originally proposed. How to find the exact geoclimatic conditions for its cultivation and harvest? How to deal with shipping and customs strategies to move the necessary ingredients between borders? are some of the relevant topics if we narrow the discussion in this direction.

Another approach, with more spiritual implications, deals with the different needs and meanings that emerge from working with the preparations in different localities. It is a path of exploring the very essence or purpose of these preparations. Bridging the essence of the preparations to their adaptation in different realities in places around the world is a question for the development of a worldwide movement. It evokes a vision of striving for autonomy and recognises the use of "alternatives" in places around the world, enabling people to be confident about the development of their spiritual path from a personal relationship with the preparations. The question forces us to think from different perspectives at the same time: from the local reality of biodynamic practitioners around the world, while maintaining the overarching spiritual impulse provided by Steiner.

This is indeed a long-term perspective, where no quick fix can be expected soon, but where a sustained effort of work and resources is needed. The task requires a systematic effort on the part of all those who are drawn to the spiritual question in their localities and has a deeper meaning for the biodynamic movement as a spiritual and social community. This renewed search for meaning in biodynamics relates to the 100-year milestone of the movement and poses the following conundrum: how to remain faithful to Steiner's word while enabling the natural evolution of the biodynamic impulse into the future?

THE AIMS

This study is rooted in the spirit of striving for an enlarged (more than originally indicated) understanding and acknowledged use of preparations in different contexts around the world today. It seeks to better understand the realities, challenges and adaptations developed by farmers in the search to work with good quality biodynamic preparations in accordance with their cultures and geo-climatic realities. It aims to provide valuable insights for an open discussion on new possible ways forward for the biodynamic movement today.

The following three objectives summarise the work

- To understand and identify the main socio-cultural and geo-climatic challenges that influence the work with biodynamic preparations in different regions of the world.
- To identify the first adaptations made by biodynamic farmers in response to their realities, including a collection of initial experiences and observations on the use and experimentation with "alternative" ingredients or other preparations.
- To deepen our understanding of the meanings and potentials behind these processes of adaptation, and to propose possible ways forward for the International movement to support the unfolding of the biodynamic movement across the world today.

THE PARTICIPANTS

A total of 118 people participated in this study, including biodynamic farmers, prep. Makers and advisors from all continents. The scope of the study includes experiences and perspectives of practitioners from different socio-cultural and geoclimatic contexts. The interviews in this study identified many people who were previously unknown or very distant from the international governance of the movement. People who were found through other local people on different continents. This study has therefore widened the international view of who and where people are making preparations, and the study itself has therefore had an integrative effect in that those spoken to are now potentially open to being in a wider network.

The main method used to collect data for this study was in-depth interviews conducted through online meetings. Some participants who preferred to respond in their own time received the interview questions by email. All interviews were transcribed and analysed, and the information was sorted by region and/or continent.

The study was conducted by Maria Paz Bernaschina and Andrea D'Angelo.



**BIODYNAMIC PREPARATIONS
ACROSS THE WORLD**

UNDERSTANDING CHALLENGES AND LOCAL CONTEXTS

The movement is growing and developing in most regions of the world and the ability to work with biodynamic preparations is influenced by many interrelated factors, including access to ingredients, socio-cultural barriers, access to knowledge and climatic diversity. A general overview of the most common challenges we found in the different regions are summarized in this section.

Access to **quality animal organs and horns** is perceived by most participants of this study as one of the main constraints to the continued development of biodynamic preparations. The decline in the number of animals coming from biodynamic farms, increasing government regulations and restrictions on access to or handling of animal organs and the growing trend to breed animals without horns are perceived by most of the participants of this study, regardless of the region, as limiting factors that make it increasingly difficult to obtain animal organs or horns of the quality and quantity that is needed for the manufacture of preparations. The strong presence of animal-rights advocate movements is perceived by many of the participants from America, Europe and Oceania as increasingly restricting the free work with Biodynamic preparations.

Either by **political regulations or cultural beliefs**, in many countries of Asia animal manipulation is prohibited, making it difficult to access organs and horns of good quality across the region. In Buddhist regions like Bhutan, for example, it is challenging to access or manipulate animal organs, since slaughterhouses and wild hunting are not permitted. In some regions of India, slaughtering a cow or using its organs is punishable by up to 15 years in jail. The pervasive caste system regions also limit the work with the preparations for many people as they are not allowed to touch animal organs or handle the preparations. Similarly, the karma doctrine is strong among many in the region who believe in the reincarnation of their ancestors as animals in this life. As a result, many avoid touching the organs unless it is strictly necessary for their professional development. The growing trend to breed animals without horns also threatens the free and accessible work with the preparations in the region.



Despite all these contrasting realities and limitations, the availability of animal organs and horns is still possible for the various emerging impulses in Asia. That reality may change, however, as the movement continues to grow, if legal or border restrictions tighten resulting in eventual challenges to the access of key ingredients, such as stag bladders, which are currently sourced from overseas.

The difficulty of manipulating animal organs is also a strong cultural barrier to working freely with biodynamic preparations in many African regions. In many countries, such as Kenya, it is very difficult to obtain horns because of the custom of dehorning cows, while in others, such as Tunisia, cows are hardly ever reared and therefore practically unavailable. Efforts have been made to import horns into some African countries, such as Tunisia, but strict border restrictions are a major obstacle throughout the region.

Regarding the difficulties in sourcing organs, most participants from Africa, Latin America and Asia reported that the most difficult organ to obtain is the **stag bladder** for the yarrow preparation. Despite the increasing difficulties in finding this organ, active exchange networks of preparation makers and biodynamic consultants have been key to sourcing bladders regionally and internationally, mainly from European countries.

Working with the preparations in diverse microclimates, especially in the **tropical regions**, is also experienced by many of the participants as a great barrier for the elaboration of preparations. In these areas, species such as *Valeriana officinalis* and *Urtica dioica* do not develop fully, and *Quercus robur* is not so easily found. One of the main strategies that has been fundamental to the self-sufficiency of biodynamic farms in many of these regions has been to grow the preparation plants in the higher and cooler areas of the region, which is for instance the reality for many prep. makers in countries in tropical countries like Ecuador, the Dominican Republic, Brazil, Colombia, Costa Rica, India, Philippines and many others.

Also, a great collaborative effort of a network of prep. makers and biodynamic advisors at the national and regional level has helped to source dry herbs and other ingredients to those regions where self-sufficiency is not yet possible. For instance, in Asia,



Valeriana officinalis which remains one of the most difficult plants to grow in some countries is actively sourced from Japan, Europe, Australia, or some regions in India. *Quercus robur* is not widely available across the region, but it can be found and sourced from the northern Himalayas for example.

Biodynamic preparations are being produced in more and more places on the African continent. Although there is still a great need for access to preparations in the region, experienced local trainers and advisors have played a fundamental role in spreading the knowledge and improving access to the preparations or the ingredients necessary for making them. Of the various biodynamic impulses existing in Egypt, Zimbabwe, South Africa, Kenya, Ethiopia, Tunisia, Morocco and Uganda, very few are self-sufficient in the production of their preparations. *Valeriana officinalis* has been successfully grown in Ethiopia, *Quercus robur* can be found in some areas of South Africa, Zimbabwe and Kenya, but not in the tropical regions of the continent. Yarrow, Chamomile & Dandelion have been able to establish and adapt to the various regions under certain conditions, and in others, such as Kenya, it is possible to find them in the wild. *Urtica dioica*, although smaller in size, has been able to establish well in Kenya and the quality of the nettle preparation made from it is recognized to be of very high quality.



EXPERIENCES WITH ALTERNATIVES & OTHER PREPARATIONS

Whether through experimentation with locally adapted, alternative ingredients or through the use of new preparations, we found in this study a large number of Biodynamic practitioners seeking a path of individual adaptation to working with preparations in different contexts. These included different plants and/or organs but from the same species or plant families as the original preparations, plants or organs from alternative species or plant families but with similar observed qualities, preparations elaborated or applied differently to the original preparation (e.g. vegan preparations, potentizing), and complementary or new types of preparations.

Of the 120 participants in this study, about a third were already experimenting with alternative plants or alternative organs. However, across all contexts, many more were interested in experimenting or identifying suitable substitutes. Few were experimenting with potentiated preparations or vegan substitutes. However, the interest in researching vegan substitutes to avoid the use of animal organs or to find more efficient solutions for the elaboration and application of the preparations in different contexts was shared by many of the participants. In addition, about two-thirds of the participants complemented traditional biodynamic practices with other types of preparations. These are either preparations common to the movement, such as those of Hugo Erbe or Maria Thun, or preparations traditionally made with local or indigenous species, with different purposes and meanings.

This search for local solutions is driven to a greater or lesser extent by various socio-cultural and climatic factors. In the previous section a general description of the contexts in which preparations are made on the various continents is given. The difficulty in growing and adapting medicinal plants in diverse climates such as the tropics, the proximity to local tradition and cultures, the increasing regulations on the handling of animal organs are examples of driving forces of change present in many countries. To show how farmers adapt their biodynamic practices to very different contexts, in this section we present initial experiences of using alternative ingredients, substitutes and new preparations.



PREPARATION 500

In this study we found several variations and experiments in the making of the preparation 500. In those regions where we observed difficulty in obtaining the ingredients of animal origin with the desired quality for the preparation, it is where we most observed a trend in the search for local alternatives. The interest in experimenting, such as with buffalo horns, is present in many countries in Asia, Oceania and Africa where buffalo are more easily available than cows. Local prep makers from India preparing 500 with buffalo horn, commented that despite the qualities from the buffalo horn were slightly different to cow horn, the final quality of the 500 preparations were very good. Another example of using local alternatives is from the USA, where they have successfully elaborated good quality 500 with horns from native American Bison.

Regarding the recommendation to use fresh manure for this preparation we found several experiences with local alternative manure use. As with horns, one of the strongest calls we perceived was to experiment with buffalo manure. Although there are many practitioners already making the 500 prep with buffalo manure in Asia, Africa and USA, the results of these efforts must still be consistently evaluated to be able to make conclusions about their quality.

We also gathered experiences of prep. makers experimenting with goat and horse manure. They perceived as one of the major limitations the low humidity of these manures, which hindered the fermentation of the preparation. Despite the need to water this manure, the quality of the final 500 preparation was perceived by local producers as very good. In USA, while preparing 500 with horse manure, they also wrap some of the parts of mane or tail around it, to bring the horse energy into the process of the horn (as it was mentioned by Rudolf Steiner in the Agriculture Course).

The work with natural rhythms with preparation 500 are also being adapted in certain regions. In several places leaving the preparation for 6 months in the ground can trigger a problem, such as in warmer climates where the biological activity is very intense and there is a lack of cold periods. The need to keep preparations underground for less time (3-4 months) is evident in tropical areas. In subtropical or semi-temperate regions this period is longer, and the preparation can remain in the soil longer. In Nordic countries, on the other hand, they remain one or two months more in the soil. We also learned about the experience of a farmer in Argentina who, after several years of experimentation, believes that the best preparation 500 is achieved by burying the preparation both in winter and summer, and mixing the two at the time of stirring and applying.



We learned about experiences in all regions of farmers working with the 500P preparation as developed by Alex Podolinsky. A general perception of a more enlivened, strengthened and more colloidal preparation was shared by some participants. Deborah Beniacar Castro, a prep maker from Brazil, observed that “the appearance of the 500P preparation after 5 to 6 months of fermentation in a copper container as a storage container has a colloidal appearance, much moister than the 500 preparations.” After 1 year of integrated management with 500P in sandy soil conditions, green manure, permanent mulch and minimal soil turnover, Castro observed soil decompaction, longer root length, an increase in earthworms, improved soil plasticity and greater water holding capacity. Echoing Deborah's experience, other farmers mentioned increases in fertility and improved soil conditions, including organic matter content and soil structure, as a result of using 500P. This experience from Armando, a prep maker from Chile, exemplifies the feeling of a few participants: *“The color, the aroma is different between 500 and 500P; [the latter] is more intense and contains more vitality. It is more receptive in the soil, the characteristics of the plant are more powerful, it gives them a greater potential for vitality, growth and general development...”*

PREPARATION 501

One of the ingredients most experimented with is the crystalline rock that is used to make the silica preparation. Steiner recommended silica of orthoclase or feldspar origin. Due to the many different experiences, we found across continents, it seems that there is rather an acceptance of using varieties of siliceous rocks of diverse qualities and origins. In the United States, we learned of experiences in making the 501 preparations with Rubi rock, or mixing silica rock with the soil of the farm. The latter with the vision that a 501 of such quality would help to counteract the influences, but from above, helping a more balanced development of the plant. In Africa, white desert sand is used for the preparation with very good results according to its developers. In Europe, there are experiences with good results using beach rocks rich in silica and ceramic silica. In Oceania there are also experiences with diatomaceous earth instead of crushed quartz with good results reported.

We also found adaptations to the silica underground periodicity required for its confection. We found in different regions farmers keeping silica horns inside the soil for over a year. “By burying the preparation only during our summer, we missed the time when the sun passes through the constellations of Aries, Taurus, Gemini, Cancer and Leo, which, according to Steiner's notes, have an effect on the development of plants. In this way, the preparation seems to be much more effective” one of the farmer commented. “Silica preparation in hot climates should “learn” all about the sun and the cycle of the year” another interviewee stated.

LOCAL ALTERNATIVES



Map: Locally sourced ingredients used or identified by prep. makers as potential alternatives for the preparation of biodynamic preparations.

PREPARATION 502

On all continents, there is a concern to look for local alternatives to source the bladder for the 502 preparation. Today many prep makers still rely on imported bladder from other countries, mainly from the local red deer (*Cervus elaphus*), out of Europe in order to make the 502 preparation. Steiner recommended a stag bladder emphasizing the "nervous" and "sensitive" qualities of this wild animal, as the stag is an animal that lives strongly with its senses into its surroundings. The stag imprints the astral world found in its sensory life into its bladder, as is described in the fifth lecture of the Agriculture Course:

"A deer is a creature that is intimately related, not so much to the Earth as to the Earth's surroundings; to the cosmic aspect of the Earth's surroundings... What is present in yarrow is especially strongly preserved in the bodies of humans and animals by means of the process that takes place between the kidneys and the bladder and this process is dependent on the material constitution of the bladder. As thin as it may be in terms of substance, in terms of its force a deer bladder is almost a replica of the cosmos. By putting the yarrow into a deer bladder we significantly enhance its inherent ability to combine sulphur with other substances".

In the quest to find bladders from wild animals with similar characteristics to those originally emphasized by Steiner, biodynamic producers have already been experimenting with various locally available animals. In Australia some prep makers use kangaroo bladders; in America some use Elk bladders or bladders from other local deer, in Asia bladders from wild goats and other native deer have been used; and in Latin America we learned about experiences with bladders from local deer that can be found in the mountain range in the border area of Argentina and Chile. In other Latin American countries native deer are protected animals, and their use is prohibited. None of the prep makers experimenting with bladders of local animals have carried out consistent research. In general, they have obtained good quality preparations.

Regarding Yarrow flowers, we did not find experiences of anyone making the preparation with native flowers or with other varieties of *Achillea*. We did hear, however, from several producers in various Asian and Latin American countries who believe they have "identified" local plants to make the 502 preparation.

PREPARATION 503

Among all the ingredients of the preparations, the plant used in this one is the most accessible on all continents. Chamomile is a plant known worldwide and used as a medicinal herb in various cultures. In Latin America, especially in southern Brazil, we find people who have dedicated themselves to experiment with a "native chamomile" *Achyrodine saturejoides*, which shares similar medicinal properties. At the end of the process, however, the preparation shows a very different quality and appearance from the original preparation with *Matricaria chamomilla*, and the result must still be researched to determine if it is an appropriate alternative.

What has become more difficult over the years is to obtain fresh and good quality intestines. As with all organs, the sourcing is a complex issue due to the limited existence of biodynamic farms raising cows. Even so, since intestines are organs used for culinary purposes, it can be more readily obtained in specific stores.

PREPARATION 504

According to Steiner, the stinging nettle "belongs around the human heart", emphasizing its formic acid and iron content. While virtually all flowers share these qualities, in the nettle it is fully expressed in the leaf/stem parts of the plant. Despite Steiner's comment that "*There is only one case in which substitution will not be possible, because what is so characteristic in this particular plant is not likely to be found in the same way in any other species*", many prep makers are already experimenting with alternative species for the 504 preparation in the various regions (Map II). According to Stewart Lundy from the US, suitable substitutes would have a similar gesture with thorns and a suppressed flower expression like *Urtica dioica* and may have a similar "blood builders" capacity according to indigenous herbalism.

In various regions, especially in the tropics, we found difficulties in establishing and adapting *Urtica dioica*, and we learned of various experiences with native plants. In Central America we found successful experiences with *Urtica urens*. Also, with *Urera baccifera* and *Urera laciniata*, both from the *Urticaceae* family, both resulting in very good quality preparations according to the producer Esteban Acosta. "*Both nettles are very potent,*" says Acosta, "*showing wide lunar attributes, and a sensitive, watery, vital and etheric gesture in their leaves, similar to Urtica dioica. The 504 preparation has surprised us, it is juicy, humic and powerful. We have been using the preparation for years, showing great effects. We use it in compost and as a slurry being a great activator of initial plant development. We want to start further research...*".

In Sri Lanka local practitioners have made preparation 504 with an indigenous stinging nettle, *Tragia hispida*, and compared to the preparation with *Urtica dioica*. From their experience, "*finished preparation quality and appearance [were] very similar, but [the] local variety stem is [a] bit harder than the other, and hard stem parts are not digested very well during the burying period. [During] application or after we did not notice any difference.*"

In Kenya, the 504 preparation is made from an endemic species, *Urtica massaica*. According to the experience of the prep makers Rolf & Anne Bucher, the quality of the preparation was the same as with *Urtica dioica*. In New Zealand, the native *Urtica ferox* or tree nettle is used, with the following comments from a local prep maker: "*I could not see any difference on quality compared to preparations made with Urtica dioica. I had the same feeling with the preparation, both have the same dark black color*".

Many other native species have been identified as potential substitutes, including, *Parietaria officinalis*, from the family *Urticaceae* in Latin America and *Urtica parviflora* in the Himalayan region. The question of how to evaluate the quality and effect of preparations made with these alternative ingredients is present with all the prep makers we met in this study.



Urtica massaica, Kenya.



Urtica Baccifera, Costa Rica



Urtica parviflora, India

The nettle preparation is commonly buried in different clay vessels, or in clay flue tiles, as proposed by Alex Podolinsky. We found a couple of practitioners in America using animal sheaths, in addition to clay vessels, such as pericardium or gall bladder. Danilo Solano from Costa Rica shared his experience using pericardium to potentiate the nettle preparation:

*"To [make] this preparation we used the pericardium of our calves and local nettles (Urtica baccifera and Purple Nettle) that we collected in the days close to the feast of Michaelmas. From my perspective the pericardium of the calf impregnated the IDEA of functional threefolding to the transformation process, contributing mainly Asymmetry to the preparation as a whole (**), that is to say in the apparent chaos that presents the form there is an order or fair proportion, which granted a greater final concentration of formic acid in the harvested preparation. According to my mainly sensory observations; I perceived the nettle preparation quality when I introduced my hand to what appeared to be a chocolate cake-like texture, moist and spongy. The preparation has maintained its colloidal humidity very well. It is important to note that to this particular preparation I like to add a lot of bee honey prior to its transformation inside clay pots buried in the ground during the time of the year when the Sun is in Virgo".*

******In the organization of the circulatory system in mammals and humans. The pairs of aortas disappear, and the system becomes asymmetrical. Appearing thus the first Functional Three-folding that appears in mammals and is perfected in humans. Taken from Johannes W. Rohen.



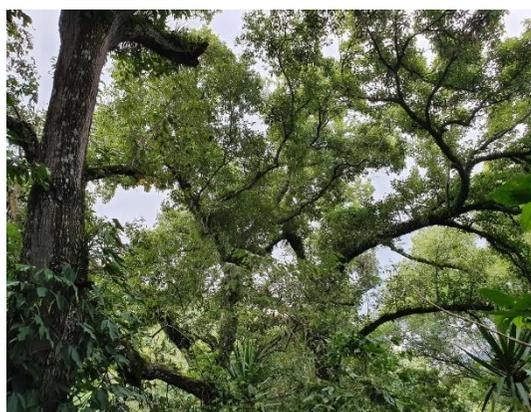
PREPARATION 505

Quercus robur is not a native species in many regions of the world. In this study, we found a great deal of experimentation with the ingredients used to make the 505 preparation. On the one hand, we found a large number of prep makers using different local varieties of *Quercus* on different continents (see Map II). In the United States, for example, the use of White Oak (*Quercus alba*) is very common. Comparative studies have been made among members of the Fellowship of Prep Makers in the USA to compare the quality of the preparation 505 with *Quercus robur* and *Quercus alba* and no evident differences have been found. In Latin America, experiments are being carried out in several countries such as Costa Rica, Mexico and Ecuador with *Quercus costaricensis*, *Quercus nigra* and *Quercus insignis*. Local prep makers have found great similarities in the qualities and gestures of these *Quercus*. In Europe, we also found significant experiences with *Quercus suber* in Portugal and *Quercus pubescens* in Italy and Greece also with apparent good results. In India, in the Himalayan zone of India and China, the preparation has been crafted with the native species *Quercus dilatata* and other native Oak species that have been identified as possible substitutes. Common to all these experiences, however, is the lack of ability to prove conclusive results.

Many people with an interest in experimenting, or those who are experimenting, have already identified locally important tree species as potential alternatives to the *Quercus* species. For example, in some areas of Latin America, it is believed that Capororooca (*Rapanea ferruginea*) could be a replacement for Oak, and in Africa, they have identified the Meru Oak, (*Vitex keniensis*) as potential substitutes for *Quercus robur*. In Asia, alternative species have been identified in Vietnam and the Philippines. Preliminary studies of calcium contents of *Moringa oleifera* and *Terminalia arjuna* have already been done in Asia, demonstrating much similarity with Oak bark. A deeper understanding of the cosmic qualities of those trees still remains to be investigated.



Quercus dilatata, India



Quercus insignis, Guatemala

PREPARATION 506

One of the most relevant aspects that we found in the search to adapt and improve the quality of the 506 preparation was the origin and quality of the sheaths used. According to Deborah Beniacar Castro, a prep maker in Brazil, the quality of the preparation is very important: *“So that the preparation can be brought to a colloidal state; in addition to the transformation process continuing during storage; The preparation can be made with the part of the peritoneum that surrounds the small intestine, carefully detaching the membrane, removing excess fat and wrapping the flowers harvested on its 1st day of opening.”*

The use of the mesentery and omentum instead of the peritoneum for the elaboration of the 506 preparation is an adaptation that we found among prep makers from various regions. As a prep maker from Latin America commented, *“We have opted for the mesentery, because it is more related to sensitive digestion, it has an interesting nervous and blood coverage, different from the peritoneum, and the preparation has presented a better quality”*. Another prep maker from U.S observed: *“The use of omentum instead of mesenterium is contributing to making a better-quality preparation, from a dried to a colloidal preparation.”*

Although in most countries dandelion, *Taraxacum officinale*, is used for the preparation, potential local varieties have been identified with which experimentation is still needed. For example, in some parts of Asia *Taraxacum mongolicum* has been recognized and in Israel *Taraxacum cypricum* and *Leontodon tuberosus* have been identified. In the words of a prep maker: *“we could see that these local varieties follow a similar pattern of formative gesture but do not reach the maximum gesture visible in the Taraxacum officinale variety. So, for now, we do not use them”*. Stewart Lundy from the US believes that an example of possible substitutes that belong to the same medicinal family by signatures and traditional uses are chicory and thistle. These are all liver herbs and Steiner has remarkably similar things to say about chicory and dandelion, he commented.

PREPARATION 507

A recurrent barrier among preparation developers in tropical regions especially is the flowering of *Valeriana officinalis*. In different parts of tropical countries *Valeriana officinalis* can germinate and grow from seeds or plants originating from Europe, but flowering is a great challenge. Trials in Africa with artificial light have succeeded in stimulating flowering after 2 years of experimentation. Field experiences of Andrea D'Angelo in Brazil and other growers since 2012 in southeastern Brazil were successful in developing the full cycle of Valerian plants. This was achieved after 4 years of intense biodynamic management of the crop, applying the full slew of preparations 4 to 5 times a year, and with monthly applications of the Silica 501 and Valerian 507 preparations. This intense use of the preparations continued over a 7-year span until the crop was fully stabilized. The intimate relationship and strong dedication were important aspects in the development of the potential of the Valerian that continues in its cycle during the year. Making the preparation with the petals of *Valeriana officinalis* is no longer a problem in this region. The flowering and production of fertile seeds from specimens of *Valeriana officinalis* have been achieved years later in another part of Southern Brazil too, from the Latitudes 20 to the 35 degrees. The adaptation is happening at these diverse contexts and biomes.

In various regions biodynamic producers are at the same time experimenting with different native Valerian species. Vincent Geerts, a biodynamic producer based in the tropical regions of Mexico, despite having successfully cultivated *Valeriana officinalis* in his region, his perception was that its flowers were very fragile and lacking etheric strength. Therefore, Vincent has undertaken a long process of Goethean observation and experimentation with native *Valeriana edulis*. This native *Valeriana* grows at high altitudes (+2500m) and flowers in mid-July (summertime in Mexico). He has developed a very close relationship with this native plant and has observed for him convincing results in the quality of the 507 BD preparation made with this plant. So close is the bond that Vincent has developed with his local *Valeriana* that he has written some verses honoring the plant.



Valeriana edulis, Mexico



Valeriana salicariifolia, Brazil



Valeriana prionophylla, Central America

Ambra Sedlmayr from Portugal has made preparation 507 with a native species, *Centranthus calcitrapae*. "This plant grows in very dry spots" she commented, "which is in alignment with our climate and therefore seems really interesting, but since I don't know how to evaluate its effect, I stopped trials. Recently I found native *Valeriana officinalis* and started growing it. The plant is very different from the central European *V. officinalis*."

Liron Israely from Israel has used the local variety *Valeriana dioscoridis* since 2019. He has compared over the years the quality of the preparations made with native Valerian. In Liron's words: "It does seem to us that that *Valeriana dioscoridis* follows the same formative pattern than *Valeriana officinalis*, in both cases, we recognize similar aromatic patterns, and the structure and color seems the same. The comparison seems good, but if we want to have a better understanding of these plants a Goetheanistic approach of the plant to the final preparation will be needed".

In Costa Rica, Esteban Acosta has used the native plant *Valeriana prionophyla* with excellent results according to the experiences shared: "The preparation gives us a lot of confidence," he says. "Curiously, the *Valeriana officinalis* of Costa Rica began to bloom the same year that the *Valeriana prionophyla* grew. The gesture of both flowers is very similar. Could it be a tropical gesture?"

Among other Valerian genus' that have been identified as possible local alternatives for the preparation 507 are *Valeriana jatamansi* in the Himalayan area of India, and *Valeriana salicariifolia* in southern Brazil.

PREPARATION 508

Various native species with similar "gesture" and "siliceous" qualities are used to substitute the *Equisetum arvense* plant. In Steiners words as "The *Equisetum* draws the cosmic nature to itself; it permeates itself with the silicious nature (90% silicic acid"). In which the cosmic is present in very great excess, yet in such a way that it does not go upward and reveal itself in the flower but betrays its presence in the growth of the lower parts".

Varieties of the *Equisetum* family such as *E. bogotense*, *hyemale* and *giganteum* are used as local options in Latin America. "The preparation has proven to be effective in supporting plant health, especially if applied in opposition to the moon-saturn, months before the onset of the rainy season, and in conjunction with the energizing 501 preparation," said a local prep maker from Central America, working with *E. bogotense*.

In Oceania, Africa and certain regions of Asia *Casuarina equisetifolia* is commonly used as a local substitute. The experience has been very positive commented an Australian prep maker "Casuarina has been tested to hold large amounts of silica ash when burned. It works really well as an atmospheric water balancer and as a fungal promoter when cold fermented and added to the soil. We use it with great success in vineyards to prevent fungal infection".

Stewart Lundy, an experienced prep maker from the US, recommended looking for medicinal herbs with a similar gesture and high content of both silica and sulfur, and mentioned pine needles and Bamboo as suitable substitutes for *Equisetum*.



POTENTIZED PREPARATIONS

Interest in the experimentation with Biodynamic preparation in potentized forms has grown in the search for greater efficiency in the application and storage of preparations, quality unification, solutions for applying preparations on large surface areas, and working with preparations in various contexts. Experimentation dates back to the beginnings of the biodynamic impulse, with the initial research of Lily Kolisko that started in 1923 together with Steiner. In this study, we found and compiled some of the experiences of prep. makers working with potentized preparations in different regions.

In Germany, Benjamin Epler, actively engaged in Lily Kolisko's research, and over the last 6 years has investigated the effect of the potentized preparations in different public research institutes. Although potentized preparations are stirred by hand several times to reach each potency level, Epler stated that, on the other hand, *"they are effective for a long period of time and can be used immediately without being stirred again"*. Among the diverse results he has examined, his studies have shown that potentized preparations improve positively the overall vitality, immune defense, metabolism and growth of grape vine plants.

Malaysian prep. maker Chin Tiong Teoh has been experimenting for a few years with potentized preparations with good results on his and his students' farms in different countries. He has wide-ranging experiences with BD500-D3, BD501-D3 and potentized BD compost preps, and has observed great improvements on parameters such as fruit quality, harvest quality, organic matter in soil, plant vigor, among others. *"One of the best things about the potentized Preps is [that] it's easier to use, [and it's] not necessary [to] stir [a] vortex [for its application, since] it's stirred during [the] potentizing process"*, commented Teoh.

Biodynamic trainer and prep maker, Peter Kearney, shared his positive experiences with potentized versions of the 500 and 501 preps, biodynamic peppering, and Soil Activator. The Soil Activator is similar to the CPP mixture except it also includes all the biodynamic preps, plus Summer and Winter Horn Clay preps from Hugo Erbe. Here are Peter's comments on the potentized Soil Activator: *"We apply the potentised soil activator each month on [the] growing area. No need for stirring the potentised prep at this stage as it already carries this influence. I feel it's important that the intention of the prep user is embedded into the prep from doing the potentization process, otherwise if I simply give some drops to a person to use, the quality of outcome is not so clear. On some months we apply soil activator with the stirred physical prep instead of the potentised prep. We are experimenting with this. Our plant vitality is high, and the soil activator keeps the living process and the 4 elements in harmonious relationship"*.

In the US, a member of the Fellowship of Prep Makers, Lloyd Nelson, also works with a similar potentized preparation named *Buffalo soil activator*, as well as other homeopathic Biodynamic remedies. *"The Soils Activator makes things easier for farmers, especially in larger extensions of land...We have had so many good results in soils and plants with homeopathic preps. There are different techniques to make these preparations,*

as there are different ways of applying them. Using the proper dilutions is key. We work with small quantities of the substance and in close dialogue with the spiritual world and the elemental beings to make these preparations effective - We need to show people this is working" Lloyd stated.

From another practitioner in the US, we found that he was applying all compost preps in potentized form into the manure for making 500 before this goes into the horn. In his words, the resulting 500 is "very beautiful", and has a great smell and flavor.

Participants shared thoughts on different ways of applying preparations. Stewart Lloyd believes that trees themselves can be a vehicle to broadcast the preparations. Some experienced biodynamic practitioners emphasize the relationship between the biodynamic preparations and the elemental beings in nature: Hans Supenkaemper thinks that in the future, we will work in novel ways, and maybe we can find hot spots in the farm, where elementals beings can also help us spread the preparations. Many in Australia follow Hugh Lovel's initiative on radionic instruments and use broadcasters on the soil.

Cheryl Kemp, an experienced Australian prep maker, crafts radionically a Complete Biodynamic Potentized Preps Set, containing the 500, 501, 508, and all compost preps, plus the Summer and Winter Horn Clay, Horn Sulphur, and Horn Basalt preps. She also used the potentized version of Three Kings preparation from Hugo Erbe and finds it very important in working with the Elementals. *"Over the years we have heard stories of either applying it to the boundaries of the farm, physically or radionically. It has kept raging fires out of [our] land, [where] the fire totally chooses to go another way. I have done a radionic pattern of Three Kings with three others to swing a cyclone off its path",* she mentioned.

Glen Aitken, from New Zealand, has vast experience with homeopathic preparations and believes that *"the biodynamic movement needs to focus on the energetic activities as manifestations of the physical astronomical spheres. Spirit activities are Star forces, Astral activities are planetary forces, Etheric activities are atmospheric activities and Physical activities come from the Earth processes. This brings all the faith to Earth and farmers can understand the forces from this very real basis. Then the focus has to go on how the forces are the basis of everything. All problems we face needs to be seen as a substance and force process."* Aitken promotes the work with potentized and homeopathic amounts of substances, emphasizing the relationship between substance and force.



VEGAN SUBSTITUTES

Although the question of finding viable alternatives to animal sheaths is very much alive among some prep makers in the world, there are still very few who are actually experimenting with substitutes today, or who have been able to carry out research that yields convincing or significant results.

The researcher Walter Goldstein from USA studied the effects of the animal organs by replacing them with artificial sheaths (linen instead of intestines for chamomile; linen instead of mesentery for dandelion, and glass or plastic tubes instead of horns for manure). Results were that artificial sheaths did not make good biodynamic preparations. In his words: *"The animal sheaths clearly play a major role in transforming the material inside them. These organs create effects that make the manure or herb look like it has been the subject of aerobic composting. Such materials hold in their smell while losing little organic matter through the decomposition. In contrast, if the preparations are made in artificial sheaths they do not appear to humify but rather ferment; and they release pungent, unpleasant smells as soon as they are released from their sheaths. This is similar to what occurs under normal anaerobic fermentation."*



An Italian prep maker experimented with bee's wax as a replacement for *omentum* to make the 506 preparation with poor results on the quality and effects on the fields. A wood box from oak instead of using the skulls to make 505, has also been tested by a Polish practitioner with unclear results. In India, the Philippines, Taiwan and other countries of Asia, experiences with clay horns were collected: *"The first visual impression was not as good. The manure inside the clay horn did not look very good. Also, I could not find the fungi presence that is always there. The biological surroundings of the traditional preparations were much richer than from the horn of clay. I could not find the feeling of liveliness,"* commented an Indian prep maker using clay horns.

Some practitioners spoke about the potential of the "vegan preparations" approach developed by Maria Thun, but we could not find practitioners who have consistently experimented with the bark of the different sacred trees she refers to. These preparations are based on a deep understanding of the planetary system as part of the astral body of the earth and that they are embodied in the trees. Maria Thun postulates that the planets' astral forces have a strong influence in developing trees sheaths, and therefore she believes that using tree barks could be more efficient than animal organs. For example, she proposed the use of Maple bark as a sheath for preparation 506, Larch bark for preparation 503, and Birch bark for preparation 502.

Maye Bruce's recipe was also mentioned by an experienced prep maker as a potential alternative for anyone unable to procure sheaths for the preparations. Bruce found that using nothing but powdered stinging nettles, powdered yarrow, milk sugar and honey, you could get as nearly as good results as with the full set of BD preparations *"You can develop a good compost starter by mixing these together and letting them ferment for 48 hours"*.

OTHER PREPARATIONS

We found in the study use of other preparations, in addition to the traditional preparations, by a few experienced prep makers who are well known worldwide. Among the most commonly used around the world are, for example, different preparations of Hugo Erbe, CPP (Fladen and all its variations including Barrel compost and Maria Thun prep) and multiple adaptations of teas & extracts from native species.

Hugo Erbe's preparations are made and applied on all continents, especially the best known, the Preparation of Kings. Especially in Latin America we find a very strong impulse to apply and study the effects of Hugo Erbe's preparations. Experiences of local producers emphasize the role of these preparations in the vitalization of the forces in nature, especially as a means to positively engage the elementary beings. In conjunction with biodynamic preparations, these preparations seek to work with and harmonize the vital elements present in nature. Some of the people using Hugo Erbe's preparations in different parts of the world commented:

"The perceived effects reach the social and human sphere of the farm"

"...especially the three kings prep, allow a change in the elemental beings and atmosphere of the place, picking up on higher energies and feelings, not necessarily always knowing what it is or what they may mean, but meanwhile the garden thrives and the overall feelings are rather positive..."

"Three kings in particular is a great addition to the nine preps and honoring the elemental beings. When they are applied at the right time of the year their combine effect is very powerful."

Farmer Laura Manzano in Mendoza, Argentina, also shared some of her experiences with Hugo Erbe's preparation:

"Working with Hugo Erbe's preparations brought an awareness of the prevailing forces in our agricultural space. We started to use them after a major climatic event that hit our farm. And they were an indispensable complement to R. Steiner's preparations. We started with the Kings preparation and then we did a monthly intensive treatment with the Harmonization prep, Humus Clay, and Cow Stomach preps, together with preparation 500 and Valerian. The results were visualized over time, not only in the agricultural but also in the human and animal environment. After a year of applications, social conflicts were resolved, we found a balance in the animal load, many diverse birds arrived, the soil

became more alive, with a diversity of plants and animal life. Working with Erbe's preparations gave us the opportunity to feel free and able to experience new ways of living agriculture, feeling as true mediators between the forces of the sky and the soil".

Sebastian Iriberry a prep maker also from Argentina, shared his experience and understanding of working with Hugo Erbe's Harmonization preparation:

" The experience I have been able to acquire up to the present time with the Harmonization prep, has been a means of establishing a relationship with spiritual being of different spheres of action, whether through the hierarchies or elemental beings, and the elemental forces that are expressed before them. Using different methods of dynamizing (stirring) and broadcasting, but in every case with a high degree of intention in the process, a total sense of delivering an offering with the preparation, and a clear message of assistance to fulfil a request from those requiring it.

. I experimented with the possibility of interacting (with the prep as) mediator with hives, defying the worst days according to the calendar to do work with native bees with a high degree of intolerance to being subjected to spring inspections [in the hives]. I managed to change their highly defensive attitude toward a more docile one that is not normal for them.

With conscious intention, I tried to establish communication with their (spiritual) custodian, by asking for permission to inspect the hives on leaf days and even on leaf trigon days.

On other occasions, applying the Harmonization prep, I have generated a change in climate that has triggered rains the night after the application, with no probability of precipitation in the forecasts. I have also been able to confirm its harmonizing capacity prior to human gatherings where it was necessary to generate an appropriate environment in delicate situations or situations of profound transcendence, where decisions were to be made those implied great changes in the future."

THE QUALITY & EFFECTS OF THE PREPARATIONS

HOW IS QUALITY DEVELOPED AND UNDERSTOOD?

The diversity of visions and approaches from farmers to the questions of how to understand and develop quality, and how to evaluate the impact of their preparations (either traditional or alternative preparations), found in the different cases of this study, reinforces the need to continue to accompany biodynamic farmers and prep-makers with appropriate skills and tools to support their learning and development path with the preparations. This need is expressed by most practitioners already experimenting with alternatives as they acknowledge that they do not know with certainty how to evaluate the quality nor the effects of their preparations. As commented by a prep-maker in Europe: *"With alternatives (preparations) this whole question about evaluating quality becomes an even bigger question. Actual research on the effects of the (traditional) preparations is scant and hard enough to demonstrate that they work. How do you evaluate the results of something that is done differently?"* .

Several of the participants in this study recognized the importance of the initial steps in the making of the preparation. The use of **locally sourced ingredients** came up for many people as an important aspect when discussing their quality. As stated by a prep-maker from New Zealand: *"It is important to make the preparations ourselves, as the more the materials and compounds used for farming are coming from the farm itself, the merrier for the overall balance, growth and regeneration of the farm entity"*.

Another aspect, **the timing of the harvest of plant material**, in relation to cosmic moments (what time of day or year) or plant development, was also mentioned as a relevant aspect several times. Although we did not delve into the relevance of these precise moments for the harvesting of each plant, the following perspective shared by the Philippine practitioner provides us with an outlook on the issue: *"When you harvest any plant, it has to have enough life. If it goes too much into decomposition,*



it is dead, if it is too young it does not have enough silica in here. All the preparations have a similar process. Knowing that you have harvested it right is a faculty you develop through experience."

The majority of the participants relate more directly to the *quality* question of their preparations once they have been dug out of the ground. An initial **sensory evaluation** of the preparations was undoubtedly one of the most relevant criteria to understanding quality. Moisture, good smell, and that they have been transformed into a colloidal state were for instance the most important aspects to good quality of horn preparation 500. According to a prep-maker from Egypt, for example, *"The preparations should have a good smell, should look dark and it's best if they have a spongy texture - and they may contain small organisms"*. The following questions asked by farmers to guide them in their own evaluation inform us of what could be relevant aspects: Does it feel like it has life? Are there different types of Mycorrhizal fungi growing in there on the surface of the horn? Does it smell like humus? Is it granulated?



The method and place of **storage** of preparations was also for most of the participants considered a fundamental element in preserving and building the quality of the preparation. A good storage that preserves the humidity and vitality of the preparation was mentioned by many of the interviewees. For example, for a Spanish prep-maker, a key moment for fortifying prep quality begins after digging them out, when there should be a close control of the humidity and temperature in storage. *"We monitor humidity on a weekly basis," he says, and "if it comes out too moist, we have to eliminate some of that humidity."* For an interviewed Mexican farmer, a good storage place will be one that allows him to preserve the colloidal state of his preparation: *"I take care of them and evaluate their quality... If the preparation remains in its colloidal state over time, the place is a good place"*. Similar opinions were manifested by other prep-makers who mentioned that stability in storage is key, guiding themselves based on certain questions like: Has the prep's smell changed? Does it feel alive? Does it want to absorb moisture? How does it feel to the touch? As commented by a Portuguese prep-maker, *"for me the most important and easiest criteria to watch for is stability in storage,"* adding that his preparations, *"are moist and stay that way and don't transform any further for years"*. A related issue that a few practitioners emphasized should not be overlooked is the importance of caring for preparations when moving them from one place to another. With respect to this, a Latin American farmer stated: *"Preparations can be shared, yes. But it is a sensitive issue. Always in a box, inside the peat, otherwise they lose their efficacy."*

A few other variables to fortify preparation quality are also worth mentioning, although they came up in fewer interviews. The source and quality of animal organs used was mentioned, especially the significance that they come from healthy and active animals. In addition, the quality of the burial site was another variable, where such factors such as soil moisture and spontaneous vegetation growing in the landfill, were to be monitored and controlled for good results. Finally, other prep-makers mentioned that the stirring and application process were also relevant aspects that could affect the effectiveness of the preps, including water quality, temperature, quality of tools or machinery used, and spraying methods.



THE ROLE OF THE PERSON

One of the main images that emerged from the interviews was that, as the connection between the person and the preparations develops, the quality of the preparations and thus their influence in the sphere of all living things on the farm strengthens and expands. This role of the person in the quality and influence of the preparations was widely commented on during the interviews.

Many remarked that working with the preparations is a path of learning, which not only requires dedication and commitment, but also love and respect for the work. Importantly, it requires a firm belief and trust in the value and influence of the preparations within the living realm, although maybe imperceptible at first. Farmers are a part of the farm organism, and many participants are convinced that their conscious activity and intention during the making, stirring, and application of the preparations influence their final quality and effectiveness. As expressed by a prep-maker from Portugal: *"I feel that the love and connection and wanting to do something good for my soil and plants, infuses my preparations with a special energy of care and wholesomeness that is ideal for my own piece of land. Otherwise, it's like a foreign body."* Highlighting the subjective influence of one who applies the prep, another prep-maker from Central America believes that, *"if the consciousness of the person applying the preparation is not focused or clear, and his 'I' appears little or nothing in the stirring of the preparations, no matter how high the quality of the preparation is, it will have little or no effect... or in other words, if the preparation is of not so good quality and during the stirring and application my 'I' is present in a clear consciousness of why we are going to apply the preparation, the effects are very positive."* A practitioner from Costa Rica summarizes these thoughts in the following way: *"The preparations should be evaluated in such a way that we can get a clear picture of the human consciousness that moved his or her will in making them. The conscious purpose of the person working with preparations is fundamental to their quality"*.





The quality and the intensifying effect of the preparations is strengthened by the deep connection that, according to many, develops in time from the conscious dedication and true interest in the preparations and the land; in other words, when the farmers' *will forces* are truly engaged into the preparation work. Through this connection, new capacities are awakened in the person, enabling a new perception not only of the quality and subtle effects of the preparations in nature, but a deeper understanding and connection with the healing and spiritual task of the preparations in the living realm. It is as if through this connection people enter into dialogue with spiritual beings and become participants in the evolution of nature. As expressed by a New Zealand farmer, *"It is the path to develop capacities in prep-makers as it incites the person to develop a trust, a faith in oneself and in the universe, a broader awareness about the world and what underlies its magnificence and beauty"*.

PERCEIVING THE EFFECTS

Diverse experiences and visions were shared by the participants in response to the question of how they perceive the influence or effects of the preparations on the farm.

Although most participants agreed that effects in the field are harder to measure in a specific way, in that there are so many contributing factors that cannot be accounted for, for some, the effects of the preparations can be concretely observed in certain aspects of the farm. Various participants, for instance, mentioned improvement on soil development, compost quality (especially a higher presence of earthworms), healthier and more resilient plants, and overall quality and vitality of food products. Among the comments made by farmers, one from the US explained that *"In our olive orchard we have treated, we have seen a better water management done by the soil and the trees, obtaining a better yield without the use of other fertilizers to the soil"*. A Peruvian coffee producer stated, *"we apply 5-6 times a year preparation 501, especially at bean filling time and you can perceive a huge improvement in quality - specially on the organoleptic properties"*. A Spanish grower also related how preparation 501 makes plants more resilient to different adverse weather conditions especially high temperatures and dry seasons.

A few other participants were looking at more specific impacts, especially on the soil level. How preparations increase microbial life in the soil was a question of particular interest in many farmers. At a research institute in the US for instance, they were implementing a project to take pictures of roots under the soil, with different prep applications to see how they develop.

Most of the participants thought that the effects of the preparations were not perceptible in a tangible way - or at least it was not what they considered to be the only way to understand how the preparations worked. In the words of an Argentinean prep-maker, *"the preparations are active rather in the realm of forces, strengthening the agricultural organism with forces from the realm of the living to produce healthier food and provide the environment and the landscape with healing forces"*. The effects, for many participants, could also be understood from a broader perspective, considering the harmony or inner quality that it brings into the whole farm. As experienced by an Asian prep-maker, *"With the preparations you bring the blessings to the whole farm...the joy just spreads and spreads when you apply the 500 and 501- it is just that everything is in jubilation - you don't have to believe in the elemental beings, when you spray 500 and 501 you can perceive and see them..."*.



In the quest to perceive the more subtle and living qualities and influences of the preparations, many prep-makers are working on or are very interested in learning about sensitive or picture forming methods to evaluate quality and effects of preparations - such as chromatography and/or sensitive crystallization (also known as biocrystallization). In this vein, the fellowship of prep-makers in the US has carried out extensive research work with chromatograms to interpret different qualities - including the etheric forces of the preparations.

The path to perceive the quality and influence of preparations is for many of the interviewees an individual path. Many believe that there is no need to compare how preparations work in different places, and in line with how they fulfill their purpose, preparations will express differently in each place. The path they believe is to awaken those sensory and perceptive capacities in the person that allow him or herself to acquire the faculties to freely embark on an encounter with the preparation that best enhances the individuality of each farm. As expressed by a European Farmer, *"I feel preparations can only be "understood" at a feeling level, the level of sensing and connecting. This develops from attention and practice."* Various exercises of observation, contemplation and meditation were mentioned as a path to awaken these capacities to enable a deeper encounter with the influences of the preparations in nature. As expressed by a German practitioner *"For me it is important to be able to connect in fullness and tranquility with the process of applying the preparations - it is in these moments that I can experience how the mood of the landscape changes"*.

DIFFERENT MEANINGS AND PATHS

We have learnt from this study that it will be very difficult to unify views on the different processes of adaptation that occur around work with biodynamic preparations if we look at this phenomenon only from the point of view of how or with what we elaborate the preparations. The unfolding and adaptation of the movement in different regions of the world have different underlying meanings and potentials for individuals and for the movement itself, and we feel it is important to also recognize these. In this section we share some initial experiences gathered in this study, which invite us to broaden our understanding of the meanings of working with biodynamic preparations today.

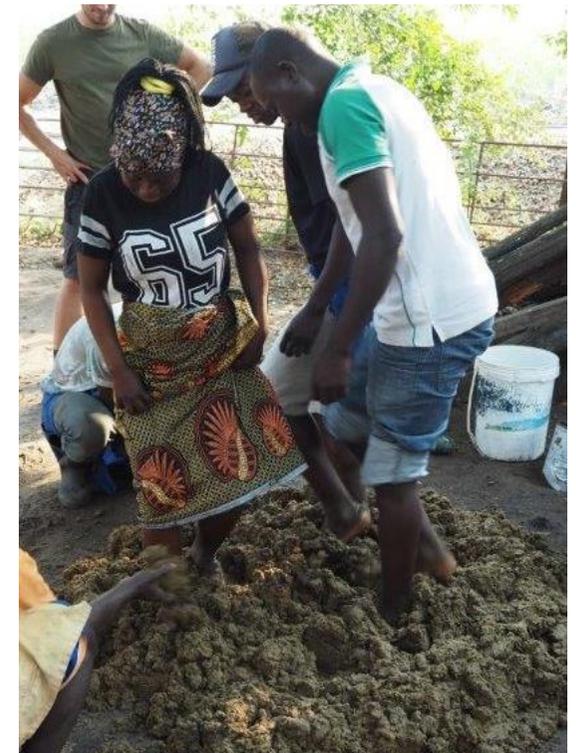
THE PREPARATIONS AS A PATH OF INDIVIDUALIZATION

Beyond the original impulse, many biodynamic farmers around the world are looking for a more individualized path with their preparations.

In many places, the search for an alternative path with the preparations is initially driven by contextual realities, such as the difficulty of growing and adapting medicinal plants in different climates, the traditional or indigenous culture strongly represented in the community or increasing regulations on the handling of animal organs. However, for many people, the adaptation of biodynamics to their local context, far from being an unfavorable process, has become an opportunity to unfold individual paths full of meanings and potentials.

For some farmers, for example, the use of local ingredients that are closely connected to their traditional and indigenous roots not only supports preparations that can better strengthen the individuality of the farm, but also brings biodynamics closer to their cultural identity. From the many experiences we have come across, such as farmers in Costa Rica using the native *Urera baccifera* to make preparation 504, farmers in India using the native *Quercus dilatata* to make preparation 505, and farmers in Brazil using the native *Valeriana salicariifolia* to make preparation 507, biodynamic preparations become a much more meaningful process when made with native species.

For others following an individual path with the preparations can also be a path to empowerment, and self-determination. As described by Ueli Hurter, *“the will flowing through our hands goes far deeper than our thoughts. The will is what is most intimate, most individual. It is connected with our destiny. To engage our will means making a commitment on the highest level...when working with the preparations then we gain individual freedom and independent sovereignty...as a sovereign being I say: yes, I can stand upright, I am*



reliant on myself, I can co-create the farm individuality.” Among other experiences we encountered, the freedom to experiment and make preparations that resonate with local cultures can be for historically, socially repressed local minorities in Africa a tremendous act of empowerment. As one African prep maker told us: *"giving the freedom and confidence to local communities that they can make their preparations and practice biodynamics can empower them enormously...we need to show farmers that they can do it, make them feel they own it"*. Similarly, in Latin America, we learned about the experiences of many women for whom working with the preparations in connection to their local roots represents an act of empowerment and an opportunity to position themselves in agricultural contexts where women still struggle to be valued with dignity and equality.

For others, experimenting with local ingredients has a much deeper meaning, responding to an inner call to encounter the essence of a particular plant or animal with which they have a connection. This is the case, for example, with the biodynamic farmers we met in Israel, Mexico and Costa Rica, who, despite having access to the original *Valeriana officinalis*, have embarked on a personal journey to meet and learn from their native



species of Valeriana, *Valeriana dioscoridis*, *Valeriana edulis* and *Valeriana prionophyla*. Beyond the individual meanings that can emerge from these deep encounters with local species, what is common to all these experiences is that a unique path of inner development can be awakened in people through a deepening relationship with the preparations. As described by a Mexican preparation maker in the context of his close relationship with his preparations: *"One develops capacities by working with the preparations, there is a parallel path of study, work, and thus new capacities appear...the person also develops"*.

THE PREPARATIONS AS A UNIFYING IMPULSE

As the movement unfolds across contexts and cultures, working with the preparations has also shown nuances of a *unifying impulse*. As already noticed in the Preparation Study from the Agriculture Section at the Goetheanum, for many, working on the preparations is a social event that brings people together for different meaningful purposes, while supporting **community building** across contexts.

For some in the Fellowship of Prep Makers in the USA, for example, community work around the preparations not only forges a shared identity but is essential to strengthening their networks of learning and inspiration. In the words of one of their members, *"At the fellowship everyone bring their preps and we compare, we study together, we learn from the others, this is huge! Fellowship is a great inspiration. We learn from different*

experiences and ways of making preps". For others, making preparations in community is a conscious act that strengthens the identity of the farm organism. As one Argentinean practitioner shared, "When a group of people on a farm come together to make, stir or spray preparations, the united will also strengthen the identity of the farm organism". In countries where a materialistic culture strongly predominates, some local prep Makers understand the work in biodynamic communities as a conscious act of struggle for sovereignty and to stay connected to their land and culture. In the voice of an American prep maker: "with less and less people connected to land and with cultural land declining around us, we need places where true is cultivated... working with the preparations has offered us this path of freedom and sovereignty ...".

Statements such as, *"We need more initiatives which can bring people together. Groups of prep makers in different regions are the best thing that could happen for the movement..."* were expressed by many participants in different countries and represent this longing to be part and build biodynamic communities.

In many places in the world, this *unifying impulse* is also connecting biodynamics **to traditional and indigenous cultures**. The preparations are opening windows for the biodynamic movement to engage on an enriching and fruitful dialogue with different local cultures on common knowledge, practices and cosmovision, especially in places where much of the ancestral knowledge, rooted in spirituality, is still very much alive. Like the words of a Nepalese biodynamic farmer, *"for us biodynamic agriculture has a very close connection with the cosmovision, knowledge and practices of our ancestors"*, we also heard from many different practitioners in Asia, Africa and the Americas. Such as those in the Andean regions of Peru, Colombia and Costa Rica, who have been able to forge closer relations with local indigenous communities by working with the preparations. As one Colombian preparation maker shared: *'For them (the local indigenous community), talking about the planets, cosmic rhythms, the plants in the preparations, was something natural that they treated with great respect and care. Their relationship with the earth and the animals was deep and harmonious"*. Similarly to the words from an Indian farmer who mentioned that *"many similarities with biodynamics - such as the sacredness of the image of the cow and the planting calendar - are bridging points with local belief systems that have facilitated dialogue and mutual understanding with local people"*. These encounters with local traditional people around the world are seen by many biodynamic practitioners as an opportunity for mutual learning and a new development of biodynamics rooted in local traditional practices and culture.





Of the likely many outcomes yet to be understood from these cross-cultural encounters, we learnt, on one hand, that biodynamics is offering some local communities a new path to contextualize and articulate an inherent threat to their ancestral knowledge and traditions. One example is that in Chile where a long-term study of Mapuche indigenous communities and the integration of biodynamic practices concluded that: "*Biodynamic preparations allows Mapuche community activated their family and collective memory to recount their relationship with their territory and their Mapuche cosmovision*". We also learnt from a similar experience from a Malaysian biodynamic farmer for whom biodynamics represents a path of reviving and redefining local traditional culture and practices, in his words, "*in an increasingly modernized country, where community bonds, connections with nature and traditional cultural knowledge are under growing threat, biodynamic practices have helped bring back those diminishing qualities of indigenous cosmological land care with a modern practical doing and has opened and awakens a new sense of holistic community out of individual spiritual growth in freedom and love*".

On the other hand, we began to understand that in this encounter with traditional and indigenous cultures lies the possibility of a path of learning, adaptation and new development for the biodynamic movement. As mentioned earlier for example, the call to experiment with many of the alternative or locally adapted ingredients to make the preparations often comes from the close connection of biodynamic practitioners to their traditional or indigenous roots. In New Zealand, building a bridge between biodynamics and Maori culture, for example through the use of local indigenous species, is seen by some in the movement as a key step in strengthening and increasing the acceptance of biodynamics in the country. In the words of an experienced NZ Prep. makers "*Learning and relating to Maori culture could be a path for the growth, recognition and develop of the Biodynamic movement in NZ*". In other countries, this close dialogue with traditional or indigenous communities has led to the creation of new tools for biodynamic practice at the local level, such as the agricultural calendar recently developed in Bali, Indonesia, which combines biodynamic knowledge with traditional indigenous practices.



**LOOKING TO THE FUTURE AS AN
INTERNATIONAL MOVEMENT**

STRENGTHENING THE FOUNDATIONS AND THE PATH TO ALTERNATIVES

Recognizing the growing needs of members of the movement to adapt preparations and identify suitable substitutes in different realities is a very important issue for the development of a worldwide movement. The search to go beyond the original biodynamic preparations and to experiment and learn from new preparations was present in about a third of the participants in this study. Claims to research on local species for valerian, nettle and Oak bark are for example present in many of the participants from countries of Latin America, Africa and Asia, especially in the tropical areas. The question of how to identify suitable substitutes for deer bladder is present among farmers on most continents. As the difficulties accessing quality organs and horns grow in some countries, the importance of finding suitable substitutes becomes ever more relevant for the development of regional movements. The interest in researching vegan substitutes to avoid the use of animal organs, or to find more efficient solutions to make and apply preparations in different landscapes, such as the example of potentized preparations, is also shared by many of the biodynamic practitioners who participated in this study.

How do we, as an international movement, respond to these needs? How do we support the learning and adaptation processes that farmers around the world need in order to practice biodynamic agriculture in harmony with their local conditions? Are alternatives the path?

The majority of participants of the study emphasize the need for openness and support for those who are already experimenting or who need to go the alternative path within the movement. We have learned however from this study that the majority of the interviewees, including those who are already experimenting, believe that while moving on to using “alternatives”, it is first key to strengthen the foundations of prep-making through developing a closer relationship with the original preparations. By experiencing the prep-making process itself we are able to reach a deeper understanding of what the preparations are, how they work, and what their essence is, before we can begin to confidently experiment with alternatives. Opinions that were confirmed by the very diverse views and understanding of the essence of the preparations, how preparations work or how to strengthen their quality and efficiency throughout the process that we found in this study.

In order to deepen the foundations of traditional preparations, and based on the visions shared by the interviewees, this study first recommends that we as an international community put more effort into "training". This includes building the capacity of local multipliers and prep. makers of high-quality preparations in all regions of the world, particularly in tropical and semi-arid regions where biodynamic practices are growing, and in regions where the quality of preparations is increasingly compromised by extreme climatic conditions. Establish more on-farm preparation and learning centers (in local languages) in emerging regions of the Global South. Promoting networks of exchange and mutual learning between biodynamic practitioners from similar contexts and climates across the movement was also identified as a meaningful way forward. *How are biodynamic farmers building the quality and effectiveness of their preparations in different climates and cultures? What can we learn from one another?*

In order to enable people to develop an individual relationship with the preparations and to have the confidence to embark on a free path of experimentation and learning in search of the preparations that best accompany the development of their farm, support for the development of farmers' capacities was identified by many of the participants in the study also as fundamental. Capacities that allow farmers to relate personally and freely to the essence and attributes of their preparations, support a sovereign perception of quality and as a necessary precedent for exploring the effects of both traditional and alternative preparations. Holistic training approaches that meaningfully involve the *threefold* human being in the biodynamic experience and that encourage the awakening of these capacities in farmers are essential paths that we as an international movement should take.

Accompanying these individual path with more efforts in "research" was also recognised as essential for the development of the movement. Continuing to develop a robust methodological approach to assessing the quality and effects of preparations was mentioned by many participants, including some who had already experimented with alternatives and recognised that they did not know how to judge their quality or effects. Considerable research into how to work with preparations in tropical and semi-arid regions was also highlighted by many as a priority for the global movement. Encouraging on-farm research and training in sensible methods such as chromatography and sensitive crystallisation was a call from many interested in exploring the more subtle and living qualities and influences of preparations. Combining efforts and building networks of exchange and research was a suggestion made by most of these practitioners who are already experimenting with alternative ingredients in a very amateur and solitary way.

COLLABORATION AND COMMUNITY BUILDING

Strengthening networks of learning, collaboration and inspiration between biodynamic farmers and the wider biodynamic community is essential for the continued development of the preparations. Regional and international networks, as we learn in this study, are essential for sustaining preparation work in most regions of the world today.

In most countries of Latin America, Asia and Africa, for example, these networks are essential, not only because the exchange of ingredients or preparations that are not available on all farms or in all areas is still possible thanks to these networks, but also because it is mainly within these groups that the knowledge of how to work with preparations is preserved and continuously developed.

The growing empowerment of local associations, the active presence of experienced multipliers, the development of "fellowships of prep. makers" and preparation centers in different regions (particularly important in Asia and Africa), and the regular coordination of global/regional conferences for prep. makers were concrete proposals shared by the participants.



Building capacity and strengthening networks of locally rooted multipliers is also seen as fundamental to further strengthening and expanding biodynamics in most regions of the global South. Establishing a dialogue of knowledge and deeper understanding with the diverse local and traditional cultures around the world is seen by many as key to enabling the movement to unfold in coherence and harmony with local cultures. Approaching biodynamic practices and preparations from a common language that respects local cultures and traditions is fundamental to creating a real interest in working with preparations and a greater openness on the part of local communities to share their knowledge and practices.

Continuing to strengthen regional networks of biodynamic practitioners was mentioned by many as important to reach out to more farmers and younger generations, or to unite and strengthen local groups, particularly in some regions of the USA, Canada, Australia and New Zealand. More conferences or meetings that bring local practitioners together to share, exchange and inspire each other's work were mentioned as important by many of the participants in this study, as they felt this would greatly help to create a sense of belonging to a community.

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