



The Missing Foundations of Our Life

**Resource reality from the point of view of self-sufficiency
Introduction to observation, models and action**

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Resources are everything we can use for our benefit in relation to what we can't control. With resource skills we can control circumstances, circumvent limitations and adapt to what's necessary. These skills have generation-spanning and accumulating effect.^(#0)

This is my proposal of defining resources. A resource can be immaterial knowledge, material or something else. I observed resources that are most connected to the requirements of our lives. The approach is mine, born from practice and based on my writing “*The Foundations of Our Life*”.^(#1)

Many of us feel distanced to resource thinking, because we relate it to global capitalistic consuming of natural resources. The definition can also be used in delicate natural economy. The better we can distinguish the resource streams, the more likely can we survive in limited conditions. By knowing the resource streams in practice, we can reduce our impact on nature or exclude matters outside our sphere of activity. A weak resource economy consumes nature unnecessarily but can also be inefficient in damaging it. Therefore even a good resource economy is not guaranteed to be kind to nature. This paradox leads us to the crux of the problem: we have too many resources to use and to find use for. Therefore the best resource is the one that is not used – especially in the case of energy.^(#2)

We cannot completely comprehend resource economy without first experiencing positive scarceness. Without practical experience our understanding of resource management can be anything. The often planned actions to protect the environment and to make the society ecologically sustainable may make things worse elsewhere and cause development on the whole to go in the opposite direction. Understanding resources is not gained from books but from making by one's own hands.

The environment movement and deep ecological thinking tend to concentrate more on their own field, leaving out other activities of which they still are a part of. Tendentious idealism is also common, which disparages the basic functional requirements by trusting in a force of spirit. The consequence might be that the concepts of change are left foreign to life without practical possibility to improve our co-existence with nature.

Most of the alternative projects I have seen have an ambiguous relationship with resources. Sadly, much of the energy is wasted when it's not known how to focus it. The price of this is that the projects cannot achieve what they were started for.

A deep understanding of the usage of resources is at the core of a ecological change. Contemplation and application are hastily needed in this state of world, which is worsening. The subject tends to arouse emotions and it takes time for humans to get used to. Otherwise the proneness to counter-reaction is great. We always come back to our psychological resources.

On the problem of observation

It's easy to talk about resource awareness when we don't know exactly what we are talking about. Resources are, among themselves, both in multi-dimensional interdependence as well as in order of importance.

How do we measure our observations? We live in a time where primary energy (Energy in its initial, unrefined form, like crude oil) is continuously being used for every person of the world for over 2 kW. That's roughly two electric stoves being continuously on at the highest temperature (2 kW x 24 h = 48 kWh!). To produce this by human endeavor, 40 energy slaves would be needed for each human in the world – day and night^(#2.1). In natural economy, the relationship is reversed: a healthy person works producing surplus and supports one person in addition to themselves, but one Google-search takes the energy needed to boil a cup of tea. When we stream a movie over the internet, the needed energy could be used to warm a sauna. According to one estimate, an AI-search requires one thousand times more energy than a regular Google-search.^(#3) Can we feel the effects of that? No. Even though the situation is incomprehensible, we have a feeling that we understand the facts.

We look at the world through our birth environment. It is the norm and we often feel that adolescents have a weaker connection to realities. Yet, our lives are a continuation of alienation which has endured for centuries. Thus, we gradually get used to reduced forests, eutrophic lakes and meaningless life, until we finally mistake a group of saplings for a forest. Resource reality has been hidden from us, piece by piece. We no longer recall that no resource that we have taken into use is free, without consequences and without impact to the world. The road back to resource understanding is rocky.

Understanding increases when working with resources, and the experience we gain is first-hand knowledge. Second-hand knowledge however, is always gained from someone else and might contain errors. First-hand knowledge can also become outdated. Continuous observation is the most important tool of resource economy but it must be remembered, that when observing, we are incomplete and prone to make mistakes. There are matters that are beyond our first-hand experience, our horizon, but still most probably existing.

If you live in an apartment house and feel cold, you simply set the thermostat to a higher temperature. If you live in countryside and cut the firewood yourself, you will almost instinctively put on a sweater. We need the experience of the body to understand the usage of resources. The body sees and offers a clear feedback^(#4) to understanding which a mere force of thought does not.

Alienation from ourselves, our bodies and from nature exposes us to overestimating our own

mental capabilities. In the framework of self-sufficiency we can technically do anything, but if you have made paper, you know that replacing toilet-paper with home-made paper would be sheer madness. The majority would not think of using moss instead.

Living amid resource abundance is a problem in itself because it burdens the brain with alternatives. The antidote is the simplification of life. One of the most effective ways to get near resource awareness is to ask yourself how would you use something you had made from scratch with your own hands. We would have to understand that everything is resource dependent – even immaterial things like sociality. Figuring out resource burdens closely requires considerable expertise from multiple fields. The industrial efforts hiding behind computers, development work and writing programming languages leave wonders of the world, like pyramids, far behind.

The concern for nature of an overburdened person does not guarantee that they would draw good conclusions on the situation. Our understanding is constantly being tested when a stronger stimulus overthrows the weaker. And enlightening writing will also take attention away from something real.

Basic resources and resulting reserves

Resources have an ambiguous nature. Defining and analyzing them has its limits, after which it starts to smell like theorizing. Resources transform fluently into other resources. Material change affects the usage of time, and adjustments in logistics change the usage of energy. Illustrating such a dynamic state accurately is not possible, even in principle.^(#5)

Working with resources effectively follows the local conditions. That is why guidelines are hard to generalize. Resources can be classified in multiple ways. From self-sufficiency's point of view, the choice is work-oriented.

Time

In the North, plants have limited time, from spring to autumn, to grow into their full length. Tasks have to be scheduled according to the seasons so that trees that are recently cut are not burned as firewood or food doesn't run out. A task list can be formed when it's known what kind of work is needed and how much time it will take, and the fluctuation of the weather and the surprises of life can be taken into account.

I chose time as the first basic resource. The biggest limit to our livelihood is not know-how or energy but time, which determines if we manage to do what we must. Time and energy are resource siblings. One who is slow has to work for longer.

Energy

The amount of energy is most simply represented by a unit of physics, Joule. Motion, heat, light and electricity make things happen. A hot furnace makes metal melt, motion makes us fetch the firewood and light makes the plants grow. In “The Foundations of our Life”^{#6)} I have concentrated on the physical role of energy in our lives because we all need it unconditionally. The procurement of food is the most central energy circulation of humankind: we get food by working and working is made possible by chemical force. The industrial era has channeled much energy into increasing of the time resource. The current possibilities for the usage of time are the accomplishment of fossil energy. To get separated from that takes considerable thought and correct efficiency of work.

Knowledge

The first prerequisite of purposeful action is knowledge. The procurement of knowledge is a big investment into the future. The resource value of knowledge is nowadays hard to distinguish because knowledge seems to flow freely to us from all directions. In earlier times, few could afford to gain knowledge, life’s basic guidelines were included in upbringing and working life started in adolescence. For those who could afford it, it wasn’t reasonable to invest in knowledge for nothing. Education had to be paid back because the resource framework of the past gave no other choices. Paid education means living on loan which makes studying possible. To make this continuously sustainable, the loan is paid back later with educated workforce.^(#7)

Information in itself is immaterial, but our knowledge travels with a catalyst of which the dependency on energy grows because of technological advances.

Tools

Tools are the interface between our body and materials. Our work flows through them. I think it’s obvious that the usage of this resource must be fluent. I have devoted a dedicated writing for the key position of tools called “Merkintöjä työmailta” (“Notes from the work site”).

Experience

The next essential resource after knowledge is experience. An experienced worker cuts firewood approximately five to ten times faster and with less effort than an amateur. Experience is an intermediate stage on the road to learning until one has become productive. In some professions it’s long. Would you like to be operated by a crash-course surgeon?

Materials

Materials used in natural economy are usually not very refined. Stones used in a wall don’t need to be refined. A plank, on the other hand, is much more processed stuff. The level of refinement I’m talking about can’t be measured in the level of current technologies, because the invisible

investment in energy and infrastructure of the fossil industry (i.e. logistics, subcontracts and training) are included in it. We get a more realistic view when we think of sawing a plank by hand – like it was done in some places 150 years ago.

The processing value of materials is, from the point of view of self-sufficiency, the physical work needed to produce the material. Even iron used to be made by manual labor and the result was really valuable!

When converted to manual human labor, the following materials would be sorted according to their processing value (Depending on the circumstances) in an order something like this: raw wood/stone – plank – paper – a clay pot/cinder block – furniture – spinning wheel – linen – metal tools – glass – plastic – bicycle – steel – electronics – computer...^(#8)

The material environment of humans would stop in the middle of the list, if not for the aid of the fossil industry. Plastic is a very processing energy intensive material.

Logistics

Logistics is a more immaterial resource based on knowledge and experience. To use it, one needs good knowledge of the basic resources (time, energy, materials etc.) and their relationship to each other. The logistics bridges together different patterns of work in the frame of time and space, and makes a fluid work choreography possible. Advanced logistics is crucial in making sure that other resources aren't wasted. Finally, good organizing protects both the mental and the physical health.

While working, we are moving huge amounts of items between places and people. Työtehoseura, an old Finnish society of work efficiency, stated in the 1970s that 30% of the work in the farms are just moving material to-and-fro, and advised to take this into account.

In good logistics the practice of “stop two gaps with one bush” has to happen almost continuously. The skills of future-proof storing and to be able to act when necessary, are in symbiosis with frictionless motion of materials. Thus forms a diverse braid of scheduled co-activities, that is, an overlapping of similar work patterns, and their interaction. Among more relaxed people, popular temporary solutions usually become bloated logistical nightmares.

Logistics has an important role at the center of resource management in buffering the resource streams whenever there are inconsistencies. That's why I try to free storage space and choose materials BEFORE they are needed. In the same way a log shack should be filled taking in consideration the case of an illness. And so, the skill to anticipate is an unseparated part of logistics. Otherwise we will live hand-to-mouth and this means taking over the resources of others.^(#9)

Storage skill is a significant factor. A good ordering is a compromise between fluent work and

the great upkeep-cost of storage. To come up with the best classification of goods is challenging and continuously changing field. There is no use in gathering goods in storage if they get spoiled there. The physical cost of logistics is usually storage space. A steady flow-through of materials keeps the needed space to minimum.

Human resources

Sociality

This resource is very multi-dimensional and hard to manage. An individual can well handle the base resources mentioned in the beginning, but sociality disturbs the mechanical work processes by introducing a human factor.

Cooperation must work if a community wants to produce enough supplies for it's own maintenance without depriving others of them. Noticing if collaborators can actually collaborate, is soon discovered while working together. As in football, everyone must know where others are in addition to their own role. Our current culture has damaged our ability to identify ourselves in the surrounding playfield, largely because we no longer comprehend how to act, even in the context of resources.

I claim, that nowadays the benefits of collaboration, compared to working alone, are almost always overestimated. In theory, heating expenses, the usage of tools and assistance can contribute to the preconditions of living. In practice, this requires experienced usage of basic resources as well as efficient practical communication^{#10)} and a satisfied state of mind. This balanced state is most of the time unstable and always in danger to decimate. The two extremes are a military-like command economy and a resource decimating emotion pit. Building and keeping a temporarily unstable state as strong as possible is nowadays a good accomplishment because we are socially demanding. A community can threaten an individual and an individual can break a community. Social balancing can easily drain a community of it's vitality.^{#10)}

Surveys have found that religious communities have better probabilities in surviving for longer than other kind of communities.^(#12) I haven't to this day seen the recipe which makes a good community. Sometimes it succeeds but most of the times it doesn't.

Our current sociality leans heavily on fossil energy. We think of them as separate because the combustion engine can't be seen. Fossil energy makes time for social life but this means that the social connectivity is not free. I worry, that in a crisis our carefree resource economy would dive us into a worser state than that of the class-societies of yesterday and even re-introduce slavery.

Body, mind, routines

At the center of everything are our body, arms, eyes and knees. The body is our instrument and the other resources are left motionless without our mind's driving force. The body is made to be encumbered, but not to be broken. The speed of its wearing should be similar to the waning of our life's energy.

All action is bound to the mind and body. There is no space for resource thinking if the mind is shackled. We get frustrated if the body and the mind don't collaborate well. In the beginning of my self-sufficiency, a farmer gave me good advice on how important it's to stay in good mood. That resource as well can be over-cherished at the cost of other tasks. The less-respected black and white mentality is one way to save strength as well as is negligence.

Source of strength

The energy of doing can stem from different sources. Short temper is explosive and fleeting, anger and bliss short-living. Resource awareness is based on experience and planning over long time-spans. Routines transfer actions to muscle memory and free resources for thinking. Technical automation does the same but the experience is transferred to structured memory outside the body (later), thus reducing from self-sufficiency.

Time

We face many time-spans in practice. Strength must be portioned for the whole growing season, building projects can take years. Dreams wait in the future. How do you experience time? Can you bear it? Excessive haste leads to rushing, excessive slowness can kill motivation.

Do we remember a previous stage of life when we weren't yet capable of doing something, when the fingers were still clumsy? The memory of skilllessness is replaced with a self-evident feeling when you are skilled.

Resource-aware life works by the phases of age. As a young adult, we test our physical limits and gain basic skills of life. After that, it's good to piece together a functioning lifestyle and enhance it. When our speed is reduced by natural aging, it might be a time for sharing experiences.

I faintly remember a farm from my childhood where the maid and the farm-hand stayed after growing old. The farm-hand fed the chickens and the maid sew socks for the whole household.

Endurance

Mental resources are most noticed when they are diminishing. Balancing them is its own account and we are susceptible to arrangements that will backfire. "Gigantic melancholies and gigantic mirth" is not always the best kind of resource management.

When I was building a house, I tried to reserve weekends for restoration. My muscles needed two days to relax. To avoid repetitive stress injuries, I had to massage my hardened arms everyday. In the last year I had to work six days a week because the wood that was already cut and meant for the house, started to wear from being stored outside. A glass of homemade kilju (A homemade Finnish alcoholic beverage) helped with muscle tension in the evenings.

Your social role

Mental resource economy is pretty simple if you are primarily responsible only for yourself. If you are in different position to others, knowledge-wise or in activeness, your resource economy will change drastically. In coordination tasks the scheduling comes from beyond yourself. You must be awake when others are still asleep and you must take the working methods of others into consideration. You will face expectations and cause disappointments. You must keep a distance, because if you get sick, it can cause a bigger bottleneck than if somebody else would.

Life energy

I took a long time thinking if I should include life energy into my resource description. Life energy is perhaps more wider topic than a human being is. I feel that this resource is very meaningful in my life, and it's exposed in many ways like in coveting beauty, joy and meaningfulness, as well as in sexual and ecstatic energy.

In addition to mundane resources, we also have emergency resources. There is flexibility between the two, which can be used momentarily but not always. We can influence our personal resources consciously with attitudes, moods and by preparing.

Knowing the limits of mental resources in normal-, distress- and in intermediate states, is valuable self-knowledge. It protects and keeps us functional in times of despair, when the frost has destroyed our crops.^{#13)}

I can juggle with the movements of the mind even in less depressing moments. I can release surplus energy by aestheticizing what I am doing (“I will build a house without any nails” or “I will sew a collared shirt from linen I have cultivated myself”).

One can envision extreme performances as a strong and attractive destination. It works well to think of sex (In proper doses) during long bicycle trips. Without going into details ☺, I claim that there's always passion (An incredible word!) behind top-performance, which is channeled life/sexual energy. Without the art of rationing strength, I wouldn't have bicycled 350 km per day or built a house.^(#14)

Intuition

Intuition is as ambiguous force of nature as is the former. If you can separate it from the surrounding noise, it's the inexact form of knowledge – instinctive and evading the limits of the mind. In proper doses it brings creativeness and self-coordination to working. My own experience from intuition is that it's a pretty reliable motive. At least it should be taken seriously and tested.

Generation-spanning resources

Generation-spanning resources don't necessarily have a very direct significance for everyday self-sufficiency economy but they frame our actions. These resources don't bend with fast changes even though they're fundamentally driving our life in the background. Generation-spanning resources bind us in time, so changing them forms the most resilient fortress of resources skills.

Many generation-spanning resources emphasize on the immaterial side or can be quite invisible. The strongest display of the functionality of the generation-spanning resources is simply that they have stood the test of time. And this cannot be simply explained by them having repressive features.

Generation-spanning means that a resource has reached an institutional status. Education, elder care, health care, insurances and money are partly dependent on political decision-making and individual choices – in good and in bad.

Knowledge

Educational knowledge (Not knowledge from experience) seemed to have a greater value before, when it was more scarce. It's inherited verbally as a resource-light song, story or game. Skills move from parent to child by an example. Monasteries and ancient libraries were founded to resource-intensively collect knowledge by copying and translating books. Medical science has been recorded for millenniums. The rulers collected taxes and created generation-spanning knowledge bases. Schools, libraries and teachers form organized superstructures which have been maintained by the surplus of the lower resource levels – ultimately with the population which produces nutrition and other necessities of life. Knowledge could “boil down”, thus making basic structures more efficient.

Part of our knowledge is accumulated generation by generation. Technology represents the generation-spanning, accumulated know-how, which goes side-by-side with practical tools.

Understanding of nature, cultivation varieties and building techniques are good sources for accumulating knowledge. Preserving humanistic knowledge is more difficult. We're as dazzled by upbringing as we were a thousand years ago. Even Socrates complained about the activities of adolescents with the same words as we do.

Material accumulation

Construction often requires considerable investments which bind the strength of more than one person, family or even a village and these could be very long investments.

Building stone houses, roads or altering the surfaces of lakes are projects that surpass the resources of an individual. Especially in the past, these were only sensible to carry out if there were probable generation-spanning benefits. This doesn't always work in the ever-changing world. The fields of our Rasimäki village were made from the wilderness by international manpower after the Second World War, but were left to little use after people moved to Sweden in search of work.

In China, a traditional porcelain production requires a generation-spanning preservation of kaolin so that it becomes usable. Grandchildren inherit the raw materials collected by their grandparents. A freedom of choice in choosing a profession would have destroyed the continuity and the accumulated professional capital.

Generation-spanning usage of resources is challenging for human intellect: is it worth making a house last centuries if the block is ravaged by fire once in a century? The spirit endures better than matter.

Culture

Part of communal resource knowledge is hidden indirectly in traditions. Culture draws longer arcs in our actions than generation-spanning does. The norms set by culture might in places be hard to get and can feel to be primarily religious or moral. Under the surface they can stem from very practical experiences. The rulebook might deal with cuisines and leisure but in the background there is communal experience based on adjusting to the climate. Realization of life with less friction is essential for the community. Because of secular thinking it's perhaps easier to see e.g. marriage arrangements and social norms as part of the system. Taking care of the children by parents and for the seniors to have a place to spend their later days were supported by these arrangements. Chastity teachings had their place when there were no medicinal means against sexually transmitted diseases. COVID-19 brought changes to our casual life in a similar

way. The reasons might be forgotten after 200 years or changed into some other tradition.

Our current culture was mostly written in the Age of Enlightenment during the 18th century. Even nowadays the starting point is a social contract from the same era, which describes the relationship between the individual and the society.

The industrial revolution has accelerated cultural breakthroughs everywhere and at the same time removed protecting elements hidden in culture.

Religion

The broadest definition of religion could be that a person has some idea about their role amid of everything and that they share this realization with others. The sense of meaningfulness gives direction to their activities, which accumulates material or immaterial resources. Religion as a resource lives in such a long time-spans that it's very slow to change. Because the implementation of religion might be very immaterial, it can free very large amounts of material resources.

Fundamentalism is a phenomenon that appears also outside of religion. Setting tight rules on living and activities affects resource selections strongly and especially during times of scarcity (#14.1) The lives of Middle Eastern bedouins in the fringes of weather climate restricted dramatically the authority of an individual. "Keep quiet"-attitudes echo the harsh times of the past in Finland. What for us is a human rights issue might elsewhere be a survival issue. The collapse or shutdown of the standards of living will most definitely move the priorities of the value system. The change of values might even be included in the recent conflicts between the superpowers.

The Amish of the United States represent a significant success in the field of resources. What makes them special is that their society has existed for centuries. They have defined their way of living and survived in an exceptional way outside the pressures of the surrounding world. They have a steady and durable infrastructure, fossil-free or fossil-low agriculture, and being a part of community is an individual's decision. This brings up a question: would such a movement be allowed to be born today.

Structural information

Everything we create around us reflects back to our lives, strengthening our perception of the normal and leads our steps without us being conscious of it. I call this resource structural or

internal information, and it's stored in the language we use, emotions, attitudes, in the vision of reality, and eventually also in genes.

In the beginning of the industrial revolution, there was more clearer meaning for the usage of innovation than today. A detailed repair guide was included with an old Singer sewing-machine, so that the machine would serve its user as long as possible. Utilization technology has turned into a development technology of which the destination is not the product but the direction. It's now being determined in to which direction our culture must evolve. We're now creating technological temporaries, so that we can get to the next phase and forwards (This in fact demands that things break up!). The paradigm shift has turned into structural information.

The more superficial level of structural information guides the behavior of people without stop-signs and encouragement. It forms from the synergy of the mind and emotions and guides us with unseen messages. If there is a chair, we feel that we can sit on it. Instinctively, we act differently in church than in a pub. We have noticed the same at the School of Self-sufficiency: if a place is neglected, people act accordingly. We had to change the direction of the cycle so that the milieu would be more aesthetic, tools would stay usable and the advancement of self-sufficiency would be supported on the whole.

We can create satisfying association-chains around us which transport the mind to the desired direction – even to the vegetable garden or to war. This is what all the propagandists try to use with Orwellian means. The difficulty they face is creating a sufficiently watertight narrative of everything, so they end up using violence as a means.

The deeper level of structural information is hard to get hold of anymore. It is an obstacle that is one of the most hardest and slowest to change in our resource behavior, among cultural factors. It works as a mental energy pit.

The School of Self-sufficiency has become an interesting communal playground, in which there has already formed naturally continuity-protecting low-level structural information.

Resource illusions

Sometimes resources are miscalculated or they are seen where there are none. The reason might be an unrealistic picture about their sufficiency, workforce or weather conditions.

I have already mentioned that in relation to social resources we seem to overemphasize their possibilities in ecological rebuilding and primary production.

Resource illusions are born especially from hopeful thinking, ideological endeavours or mystification. I caught up myself with possible confirmation bias. For a long time, I have used to think humans as two creatures; the one I see them as, and the one they would potentially be if they could utilize (ideally) their whole potential. I think of the people I have met over the

decades and cannot really find a confirmation for this dichotomy. I imagined additional potential that I expected to see. I feel that I let the modern psychological evolutionary optimism seep too much into my thinking.

Mystification is a very common self-suggestive way and an attempt to try and activate hidden resources in one's self. Many of the people who have visited me have later considered to be healed by nature or that the memory of their ancestors would now guide them to a meaningful life.

Missing realism can be a fatal trap for continuity. We are building with a risky technology even though humankind has never succeeded to achieve an eternal peace, but has periodically destroyed the accumulated abundance. None can predict what nuclear-, arms- and biotechnologies will be used for. It's these kind of facts which the developers of technologies and the society-wise are routinely setting aside, even though humans have continuously shown throughout the history that they can't control the direction of their evolution.

Other resource systems

When we are dealing with basic resources, it feels evident that work is at the center of thinking. There are other things in the schematics of resulting resources because they are optimizing themselves towards permanence. The political system exists only for so long that it can be functional enough in relationship with the people. That is why it is going through a continuous optimization process of which the destination is its own survival, and not at all the efficiency of work with the basic resources. Of course it cannot completely bypass the basic resources, as long as it gets what it needs.

Resource knowledge should also include information about other resource systems which don't have self-sufficiency and its developed, fundamental resource management, at the core. For example, the resource field and focus of political activity is completely different and isn't directly connected to the basic resources I have described. This makes it almost impossible to form an understanding about resource usage over professions and political parties. Humans are always ready to forget the matters which sustain life.

The structures of resource usage

We have a possibility to organize our basic actions in many ways. The way you work doesn't matter as long as you get the tasks balanced, make it in time and the results are in a healthy

relationship with the endeavours. In terms of physics: a system can have multiple energy pits.^(#15)

Organic model

A state of positive scarcity is a characteristic of natural economy. It forces an accurate allocation of resources. The basic resources are strongly co-dependent and therefore the most efficient resource model for natural economy is organic, strongly intertwined, overlapping and flexible with its usage of time. The goal is to get multiple tasks done simultaneously. An example of natural economy is how a tree is thoroughly utilized once the time and energy have been invested in felling it down: planks are made of the thickest part, tar is made from the resinous root, branches and parts with peculiar shapes are utilized as parts of tools and for building, sprigs for the floor of a cowshed and cones for tanning. A pile of sprigs can be placed where weeds aren't desired.

This kind of utilization cannot work separately but the other tasks have to be in a kind of a sleep-state, as a part of an interwoven continuity. The phases of this continuity must be connected without disturbing stops and with little intermediate storing. When stones are collected from the garden, it's good to have some masonry or trench project in which the stones can be utilized. Emptying a bucket in the corner of a field and filling it up later is wasted work-time. It might sound hard, but practice guides us naturally towards a method that spares the body.

This micro-level seamlessness can only be achieved in working conditions where the actions can be controlled from start to finish. Money and accountability or social- and scheduling pressures break the delicate flow of work and prevent continuous evolution of working practices. Managing a wide field requires a wide skillset.^(#16)

A more wider skillset makes composing a more complex symphony possible. A jack of all trades can benefit from low-level synergy and polyphonic parallelism. The result is a generally optimized work of art.

When observing the behavior of resources, the attention is often drawn too much to their primary use. This is typical for industrial exploitation. There, a part of the resource value is wasted because the main criteria is often the mass. A natural resource doesn't simply have just one specific feature. An organic model is the best at utilizing many-faceted resources seamlessly according to their best feature or features. In the dominant economy the surplus streams of resources easily become a product of waste.

Do you know the Jewish story called "The Blue coat"? It describes how a mother sews a vest from a worn shirt. When the vest has been worn out, she makes a tie out of it, until what's left of

the shirt is just a coating for a button.

Synthetic model

Prosperity can be developed with organic resource management, but not the modern society. We are stuck with the industrial and the post-industrial model. The size and the structure of the organic model can not be freely changed or grown bigger. The industrial model on the other hand, is built modular so that the units can be combined like Lego bricks for different purposes and sizes. The limit of the scale is determined by free energy reserves.^(#17)

The resources used by the synthetic model are standardized and of as consistent quality as possible. Where the natural economy gains advantage from the possibility of combining different raw materials, the synthetic concept is hurt by it. Because the industrial approach is not as efficient, it tries to succeed with bulk or mass production. This requires automated action. Expensive machines must produce great amounts of products so that the resources invested in them are paid back. Because of parallel utilization, the organic model creates only a few “side-streams”, if any. The industrial production yields an abundance of them and are often left unutilized.

The industrial model doesn't need common workforce but specialists for these kind of processes. A specialized worker can make more chairs in a day than a common worker but needs infrastructure for that. Outside of their skillset, the specialist is in turn dependent on the specialists of the other fields. This kind of society of specialists needs resources to bind different kind of activities together (communication, infrastructure, money, logistics, see “The Foundations of Our Life”).

A production model based on specialization leads to hierarchies through a division of labor and even to security risks. Leaders are needed to join the dots and to make sure that the processes are carried out. Special knowledge and skills can potentially generate unequal factors which need to be regulated. The production itself is hindered by a group of non-productive arrangements which form around it.

A specialized society is both a co-dependent collective and a vertical organization model. Compared to a federated system, it's a risky and unstable investment. On the whole it's less efficient than a community of common workers. Resource inefficiency isn't a problem as long as it can be located outside of the system, by subjugation if necessary.

Mechanisms which slow down the growth of the synthetic model are removed in the name of modularity. It's like a hot-air balloon. Without the stern limits of the basic resources, it'll fly

away.

The current altitude is an electric sauna stove which is continuously using a 2 kW worth of energy for every person of the world, and there's more to come. This is the level of energy needed to implement the modern society and its artificial intelligences. An energy-intensity higher than this level can't be replaced by making the lower resource levels more efficient.

Systemic levels

The structure of the synthetic model is pretty vertical and layered. At the bottom is the simplest basic production. From there, the activities get mechanized by becoming commercial, like the wood economy. Going upwards, the industrial characteristics grow, the division of labor increases and the executive ladders become longer. In a healthy systematic model, only when the bottom level is functioning well, is it possible to create the next functioning level. The new level consumes some of the efficiency of the previous one. If the new level functions well, it might return the investment, but it isn't easy.

This is caused by a phenomenon familiar from optimization. When an engineer is designing a bicycle that should be as light as possible, their biggest advancements in optimization are done at the beginning by keeping the ends of the screws as short as possible. Next, optimizing each gram requires greater and greater effort until it's no longer reasonable, concerning the profits.

Resource optimization is similar. We can reduce the carbon footprint of our lives with self-sufficiency, if we so desire. The biggest steps are taken when we learn to grow crops and make firewood by hand following the organic model. After learning to manage the basic resources well, additional achievement at the upper levels^(#18) are gained in smaller and smaller bits from here and there. There will be a turning point when going upwards where the profits of the upper levels no longer balance the losses of the lower levels. The resources in use determine the maximal abstraction level of a community.

Social structures are also consuming usable power in all of the intermediate stages, as do physical transmissions. A community based on the division of labor requires coordination that's not part of the production process. The hierarchical model requires different levels of activity, from the common laborers to executive directors and to the president. When we move from one level to next, part of the vitality diminishes and must be forced back from elsewhere. This kind of compensation need doesn't occur in the organic model.

The transitions between the levels require much attention. When is it a good time to move from using a spindle to a spinning wheel? Often the leap to the more abstract level is taken with a head

full of ideas. The result is a new tool that requires storage space in a house and is left to little use. Transitioning from an upper level to a lower one is more difficult because the already existing potential is lost. The way I see it, transitions in the course of history have often been implemented by wasting resources. This means that even the “good” innovations and efforts (medicinal science, removal of slavery, natural conservation) have been implemented based on the synthetic model, causing even greater damage elsewhere. The development optimists concentrate on the most visible results, I concentrate also on the dark sides of the developments. Based on my self-sufficiency experiments, I know that truly a resource considerate development is possible at least in theory. However, I’m pessimistic about it being psychologically possible. The price of the systemic level transition would be considered too high.

Co-existence

In practice, the dominant synthetic system also has some elements of the organic model but not on equal terms.

For countless times, I have followed how people try to make the organic and the synthetic model work together by cherry-picking. It’s in my understanding that they don’t distinguish between the differences of the fundamentals of the models. The organic model is greatly disturbed if outside pressures are placed upon it. These prevent the model’s delicate optimization.

The optimization of the synthetic model is completely different to that of the organic model where the closed circulation of the resources is the goal. At the beginning of organic farming (In the 1980s) there was a slogan “Small is beautiful”. I saw how quickly the thought vanished when organic farming became more common. The current organic farms are modules of industrial production.

The synthetic model is always looking for ways to compensate the lack of resources by integrating net producers into itself. The relationship is subjugative by necessity. In military sciences, for example, there exists long-living resource knowledge and the armed forces have the authority for taking over the necessary infrastructure in exceptional circumstances. The armed forces are in the servitude of the synthetic model but try to create simulated organic elements to make governmental activities more efficient in a time of crisis. Why not during a time of peace? A well-implemented resource maintenance would be a crisis-preventing mission and defending of the nation. A war might be one of the few situations where people accept limits on their freedoms.

Can the organic model ever be a realistic alternative to the dominance of the synthetic model?

How the resource skills are divided between the different representations of each model, is crucial. It's a pity how the quite good expertise on the resources isn't found in the system-critical parties, even though many think otherwise. It's integrated away for the use of the synthetic model. Organic expertise, which is found inside the synthetic model, is also in it's servitude. It's used only to develop the organic model in a subjugative way. How could the organic model become so noteworthy that it wouldn't be overridden even in exceptional circumstances? The attitude of the ruling party is to let the hippie-children play during good times but when things go south, the playground is closed.

The organic model would only become worthy of consideration if the resource knowledge would be taken so far that self-sufficiency would become net productive. That's a hard goal to reach which requires also low-level organizing and the specialization of the few (like doctors, teachers or other professions) outside the primary sector. The education given at the School of Self-sufficiency can only provide hints of such expertise. The resource economy we are teaching is after all a very different thing to the concept of nationwide preparedness.

Price

The price of the synthetic model is it's unquenchable hunger for resources which constantly leads to conflicts of interests over resources. The price is emphasized by the strong dependency it creates between itself and people. The most fatal trait of the synthetic model is that it has only one way to develop away from the organic model and that is by tearing apart the organic model's restricting feedback.

The synthetic model is in a collision course with itself and there won't be any miracles to save it. At first glance, the conflicts don't seem to be internal to the synthetic model, but are thought to be caused by ethnical, commercial or ideological chafings. It's important to understand that the models don't follow governmental boundaries. Bundling doesn't help with observations: with nice accomplishments, like medicinal science, we get the blessings of military technology. Their consequences will happen, statistically, with much higher probability and will prove more fatal than overcoming the medieval plague.

Drifting

The question is, how complex can a society become until it consumes more resources than it can manage? I assume that the most resource efficient unit is of the size of an old-fashioned village, and of which the residents are resource wise and efficient workers.

The drifting of the global system towards a synthetic direction seems to be unstoppable. The synthetic models form such a gravity that they pull in all of the nearby small economies. Only a collapse would presumably change this direction. Perhaps the synthetic model could, in theory, become more organic at some later stage.

The more diverse the functions in a system are, the more diverse is the possibility to connect them together and create something new. The non-linear growth of the combination possibilities of different resources fuel the dynamics (n^2 , n^3 or n^x – depending on the dimensions).

The organic model needs limiting factors to stay stable and to be able to produce new resources horizontally, by becoming more competent, for example. Without limits the trend of the organic model is parallel to the synthetic one and starts to develop additional resources for itself with its own (energy) resources, with accelerating speed. Controlling such acceleration seems like an impossible task.^(#19)

It's interesting that an individual can quite easily get near to the organic model by self-sufficiency, whereas the collective journey of the current synthetic model has been very long and has demanded much energy and work. In physics, systems strive to reach lower energy levels – the evolution of our systems overflows to every direction.

The resilience is strongest when a system has alternatives. The synthetic model gives room by reserving natural resources but not by intelligent resource usage. The industrial mass production cannot do flexible optimization because its unit of usage is quantity.

Disturbances trim the branches of a synthetic model tree.

Resource enhancement

Detecting the state of resource usage

The reason for a worry-free resource usage, in addition to neglect and incapability, is that it's simply left unnoticed. In organic resource economy, the leaks announce themselves until they are fixed or hid with external, usually fossil, energy. Our bodies will notice if the work was done unreasonably or if the time ran out. During wintertime we'll notice if we made too little firewood. A strong feedback tells the truth.

There's a danger in taking care of things too strictly becoming an obsession. We can't get rid of all the functional defects in our daily lives, so a resource capable person needs to find the practical optimum in the ordering of things. Otherwise the big picture is lost.

The most common and serious resource leakages are born from our neanderthal brains being

incapable of handling numbers over twenty. We don't take seriously the small extravagances that cause measurable additional work throughout the year. One extra log a day burned as firewood means one extra, quite a long tree per year, being cut down, sawed and cut to logs. The more refined the wasted target is, the greater is the destruction of resources. If kettles are not emptied completely during the dinner, it's not worth cultivating anything more valuable than potatoes. Becoming aware gets even harder with accumulating damage. Sewing a hole in a sock is a small effort in the beginning but gets bigger like a hole in the roof.

Basic resources

Overestimating is usually causing the leakage of basic resources. Materials of high refinement (Or energy) value are used unnecessarily. A wooden table seldom needs metal legs. A polished plank is used inside of a building and a less fine one is left for outside use. Our aesthetic likings lead us mainly to a wrong direction.^(#20)

As well as overestimation is bad, so is underestimation. My father liked to overestimate. Even wooden panels were attached to walls with screws which could have taken a bombing. A more common resource leakage is a constant fixing of things. Experience shows when it's time to stop fixing clothes and make new ones.

The easiest defects to notice are the ones that cause continuous harm. Using a hanging door which is hard to open starts taking more time than fixing it. Especially if the hinges are going to tear out off the wall and thus cause even more damage, it's time for the economical to reconsider. A constant avoiding of a nail that sticks out takes attention from more important things, until we eventually step into it. I try to fix defects at once and then I'm free from thinking about them.

Knowledge

Missing knowledge is noticed fast unless our ego wants for others to take responsibility. One problem can be the knowledge itself. Self-sufficiency arouses quite masculine associations in certain circles, like among survivalists. Tough stories about tough guys are told, which are seldom true. The stories morph along the conditions of their effectiveness. Another problem is caused by inheritance where oral traditions have been contaminated with errors. I have gained many erroneous advices and have often checked with the source if they have had any personal experience. Often they haven't.

Mind & body

We recognize our prevailing state of mind easily. The real reasons for anxiousness are harder to find. We better, since unresolved problems follow us throughout our lives. We lie to ourselves

effortlessly, so I recommend exercising unbridled honesty. It might protect us from damage. We might enthusiastically want something for which we have no qualifications for. It took me a long time to admit that I can't be as social as I want.

Understanding the state of the body is complicated. Physical strain does good for the body but not always. The messages of the body can also be misleading. Understanding one's own body enables us to work according to our age. It's very common for a one who's enthusiastically engaged in natural economy to go on for 2-5 years after which there will be a motivational crisis. At that point it should be identified if the driving emotion is positive (appreciating) or negative (despising). It would be mentally beneficial if we could have a more balanced relation with both the joys and the sorrows of life. True to the spirit of the age, we obsessively drift farther away from life by seeking shiny pastiches of it. A vocation can also weight heavy.

I myself struggle with the fact that the School of Self-sufficiency disturbs my peace of mind. But are there any alternatives? (#20.1)

Order

Reviewing resource balance is hard because the impacting parts are theoretically unlimited. What you see must be analyzed and the relevant must be distinguished from the less relevant. Keeping a resource economy in order is very important. It's good for the screws not to be in different places when I need them (Sometimes the situation is opposite...). I strive for clarity both in my thoughts and in the places I operate. An ordinary family life can be difficult for one who tries to be resource aware: five opened toothpaste tubes of which two are already dry and their caps missing. This is the nightmare of a resource virtuoso. Avoid this on all fronts for the capacity of the mind is simply not enough!

Logistics

The problems of logistics manifest in storage being full, seeking and distances traveled without carrying anything. Highs and lows of working need balancing. In the early years, there were too many simultaneous tasks in the garden. The years spent organizing sowing times and the selection of crops helped.

The so-called waste tells about utilization still being developed. A good waste management consists of no waste being born but everything being used to their best remaining refinement value. An old sheet shouldn't be used as a painting rug but first as a pillow-case. Stationary materials and tools are potential problems.

Time and logistics are related in a sense that one should get things done beforehand instead of afterwards. Living hand-to-mouth is only reactive action and greatly impairs the possibility to

optimize events by being ready for improvisation. The ability to improvise must be cherished because the reality of work economy is dealing with odds instead of certainties. Generally speaking I would say that longer the timespans we can plan for, the better.

Social resources

The welfare of a group of humans is an evergreen and persistent challenge. I have put much thought into what makes determining it so hard. There are social tensions and we develop ways and tools to handle them. I'm under the impression that it's exceptionally hard for us to detect if a tool developed for solving these problems is the problem itself. The blind spot stems from the feeling of certainty about the task being carried out with such a method. In the beginning of the School of Self-sufficiency we fell in to this very trap, which was serious, because "it shouldn't have happened!"

Figuring out the state of social resources is also hard because it doesn't attempt to treasure basic resources but often does the opposite. When people try to understand basic resources, it's usually because of a desire to make working more efficient (and possibly to get more free time!). Those who pursue sociality are often not doing so mainly to make a community work more efficiently. The reasons are e.g. the desire to belong to a group, safety, finding a partner, amusement and in addition, to get responsibilities that please the individual. The waiting room of these seekers can be a problematic crossroads where everyone hopes to fulfill their dreams by the help of others. At that point there are too few people with "surplus strength".

We can only say that a prospering community is a potential that can unravel in any possible direction. If the target is resource endurance, I can recommend an initiative small-scale farming activity that can be extended in a more communal way. A commune-style close knit community is more prone to fail than a loose village-like community. I don't recommend building a resource-endurant sociality in a community from "top-down" because I have seen little proof of it succeeding.

Social dependency always breeds direct- or indirect exercise of power in a community and this affects resilience. Only a community that has basic skills as a starting point offers it's members what they need.

Life-energy

We use life-energy primarily wastefully and get tired. This resource is quite age-dependent, and unrecoverable. Resource-aware life includes taking in consideration the phases of age. Postponing deeds for another time is usually a waste of it. Based on my observations, very central life choices are done in a very narrow time-window: at the latest in one's late twenties.

The wild energy of youth concentrates and a concept of life is created, to which one pretty much sticks to. Intoxicants interact very closely with life-energy and therein lies the problem. They give a warped view of one's strength. Life-energy is like a candle that either fades out, burns for a time or burns at the both ends. Considering resources, one shouldn't live beyond their means and spend rest of their life handicapped.

Optimizing resource threads

Whatever we do affects multiple resources at the same time. We can work faster by spending materials or slower by spending time. Nature is therefore spared only by such optimized resource usage which seeks for the best compromise. What are we optimizing for – sustainability, work time or money? If choosing only one criteria from the list, we are optimizing only partly. That is the most common approach in our society because it's the easiest and for most people the natural way of exercising control over one's life. Partly optimizing, however, operates in quite crude causal relationships and thus stays far away from natural activity. In self-sufficient economy, separate optimizations cannot reach the level of optimizing on the whole. By getting excited about some specific case, many forget the other matters.^(#21) A complicated self-sufficient economy needs wide skills and knowledge, creativity persistence, passion and little bit of coercion (i.e. hunger) for optimization on the whole to work.

Of the specific resources, money usage is not something we can optimize because it nowadays contains hidden fossil energy and has turned energy economical profitability criteria around (See "The Foundations of Our Life"). I have noticed that money psychologically steers our observations so strongly that it often disturbs our wholesome handling of resources. A successful employment can be permanently damaged by introducing money to the scene (of thoughts). Of course many think they are smarter than that. At least my own genius was not enough, so I decided to stay clear from money.^(#21.1)

The concept of the advanced usage of resources has a tendency to become stiff. A good concept includes resting places for streams, fast lanes, graveyards and backup plans B, C and D. If something goes awry, the damage is left minimal, wheels keep on turning, and the house of cards doesn't tumble or fall. Repair-friendliness should be considered both in building houses and resource economy. There are houses where repairing is like a nightmare because you can't get to places. The organic model is by nature a network of federated action. If part of it fails, it doesn't bring down the whole system.

Even the most carefully designed work patterns are prone to surprises. A loosely designed system isn't efficient, a design that's strict will fall apart and might also take down the

foundations with it. A system should be moderately against changes (Because of long-term designing which makes use of accumulating know-how) but also welcoming them, so that the mistakes can be learned from at the earliest possible stage (To prevent resource leaks). A flow of information between each stage is crucially important. If working alone, you are liable to become professionally blind. Ask for another perspective! Even the most promising improvement attempts end up in a rebound trap surprisingly often, where an unexpected factor nullifies the already achieved results.^(#21.2)

There's a heavy asymmetry in resource usage between the creating and destructive force. The more refined (or abstract) the resource level is, the more disproportionate the state becomes. One over-the-top night at the bar can invalidate a long money-saving program. A war will annihilate accumulated prosperity very fast. This fact is important in the risk management of resource economy and in the level of abstraction that is desired.^(#22)

A considerable part of resource economy is playing with the odds. Very few things are completely certain, so balancing between different risks must be carefully considered. Moving between different levels of resources includes an increased risk similarly to changing of social resources. Nowadays we take (absolutely thinking) averagely greater risks than before because we have a safety net where we land (people living in the rainforests take even small wounds seriously because they might prove fatal). We laugh at risks and at the same time are afraid of changes and worry that we might lose the "vibe".

A well-managed resource economy doesn't produce waste. In this context it's important to state that in the resource efficient utilization of materials the "degradation" or the decreasing of the value should not happen too soon: A carpenter can of course utilize waste wood in the boiler but burning should be the last step of utilization – when there really is no higher use case for a processed plank.

My own general rule for the usage of materials is: "Use as low-quality materials as possible but as high a quality materials as needed". There's no point in using high quality planks if lower quality ones do the trick.

It's hard for an amateur to follow this principle because experience is needed for drawing the line. In storing, just hoarding stuff isn't a good practice but one must know approximately what kind of flow of materials supports the work patterns. Otherwise the goods accumulate, the storage (an important resource!) gets filled and the hoarder will die from colic. One gets colic even from the number of things to remember. A practical advice: don't write long lists – I leave notes at the work site and place the utilities by the path. Stones, wood and bags of manure wait for me to go by and bigger firewood transports happen almost without feeling like working.

There's another good saying: "Don't fix something which is not broken". This is something that happens easily to someone who likes to optimize. Let a thing serve its time, if possible. Life-cycle isn't worth ending for small victories. When an item breaks, you'll know what's needed (if anything at all).

Optimization-enthusiasts often have the desire to make things as polished from the get-go as their idols have done. When following the work of virtuosos, it's worth remembering that there's no shortcut to glory even though a ballerina's jump seems light as a feather. This is true both in complicated matters as well as in resource management. The driving force of a well functioning natural economy is synergy, where the components support each other and don't work by the cost of others or separately.

Development of resource economy is by nature very pragmatic and slow. Done by experienced hands, it looks lightweight because the author knows exactly how long they can go on without endangering the process. For that, even the dull foundations must be mastered after which one can forge ahead and practice aikido with the nature.

Fixing a distorted resource balance

Functional distortions

At evenings, I have often sat down with a fed-up farmer thinking how they could stop industrial farming and work in a smaller scale like in the past. Amid milk production quotas, fuel costs and market prices of fertilization, it's almost impossible to find managed ways to do things in a simpler way. If emotional reasons would be disregarded, the best solution might be to sell everything and start anew. Then the balance in the farm could be built step by step and bring in the farm animals only at a later stage – that is, if difficulties would be desired.

Maybe there was a time in farming when things still went well? Could the wrong framework be disassembled? There's psychological friction in going backwards. For many, downshifting is letting go off things constantly. Starting from scratch, however, feels like raising the standard of living. Resource management demands that one controls the resource factors as much as possible, which is followed by keeping external resources to a minimum when renovating.

A distorted resource management returns often to structural problems and fixing them is overly challenging. Also, redistribution of mental and social resources is very difficult because we have to deal with emotional life at the worst time. It's often hard to let go of sideline tasks in due time by the ones who have problems, because they are so used to carrying out these tasks. In a state of emergency and when hoping for a way out, there is a proneness to get in a cycle of experimentation which eats up the last personal resources. I have encountered this but got lucky.

Altering social resources

The possibilities and methods of altering social resources can be argued over and over, depending on what kind of alterations and timespans are being talked about.

I know people from two sides: those who claim that everything must change so that we can alter the world. And others who think the change starts when we begin fixing our own lives first. The worst results I have seen come from those “everything” people. My own vision emphasizes on creating a strong foundation for the change and not rushing to results impatiently. To be assured of the possibilities of a change, a person needs proof of an alternative that will function reliably and not just temporarily. Generating-spanning changes are reached by generation-spanning groundwork. If a change doesn't enter a synergic state, the wheels of time will make the attempt undone.

I have often seen how demanding everything to change without proper groundwork leaves people in the ruins of their dreams.. When proceeding from the ground up and planning for

decades instead of the next quarter, there will always be something left, even though the target itself wouldn't be reached. Advertising the suitability of a work-in-progress plan as an alternative to a currently existing and self-optimizing resource-system is quite a brave deed in itself.

The statuses of the social rules of our society tend to grow stronger with reciprocity. The most prominent method of activism portrayed by the media is crash and burn which includes the possibility of escalating repeatedly. New information needed by a change doesn't really enter into a process in an action-reaction-pattern. A proper change doesn't work without synergy and requires a factor not belonging to a lock-pattern to open it. If one cannot be found, it might be better to fall back from the formation and grow carrots instead. This can make psychological resources to activate: the mainstream gets worried when people drop-out.^(#23)

In this moment we have a reason to ponder a historically unseen phenomenon: crowd-movement. Never before has information been able to move so fast and so many crowds of people. Altering of collective state of minds is an unpredictable risk. Our way of handling information has formed through evolution and not for the needs of an information society. Memes have entered alongside the evolutionary development.^(#24) How can we control a system we don't understand?

Morality

In practice, everyone who questions the comfortable living of a nation can encounter serious social disapproval. To avoid the rage of my fellow humans, I have published my writings piece by piece, so that they can be read and get used to, slowly. This has come at the price of valuable time which seems to be running out. The price of our unwillingness to think and the difficulty of distinguishing that one's resource freedoms are exclusive, increases all the time and the conclusions are clear.

- The majority should be making their living by continuously working in the primary sector.
- The social system in it's current form is resource-intolerable and makes our notions about the foundations of our life ambiguous.
- The funding of development aid and battling the climate change both come from the modern society's black fossil coffers.
- The financial economy is not a neutral instrument but a crucial part of the synthetic model. It's not ecologically renewable and prevents the realization of (energy)optimized resource economy.

Speaking on a general level this can be accepted but when we speak concretely about intoxicants, social aid, self-responsibility, consumer rights, developing countries, hunger, oppression and the future of the nature and the world, especially the feelings which are bound to ideologies run high. In the current state there is pretty much no-one who can present beautiful solutions as nothing more than empty promises. The rules of politics and sociality prevent the player from admitting their own helplessness and makes them go against substitutional targets.

There is an alternative for these attacks. A person who tries to think responsibly has to experience the painful impossibility and prefers to fall back to being an advocate of a single thing, so that they can be spared from the overpowering burden of responsibility and decision-making. Doing so, they can avoid fitting together different topics which can be in contradiction between each other and step on each other's toes. But then the person is no longer processing the matters comprehensibly.

The third option is for a person to embrace the promises of technology, like "the green transition", and to trust in the society's ability of problem solving in the future. This corresponds to the anticipation of a messianic salvation.

All of these possibilities reveal how our value systems and ethical standards are fossil-based. I know that serious resource problems like the ones in healthcare are being discussed behind the scenes, but the courage to bring these ponderings to public is lacking.

In a state of national emergency there is an attempt to subjugate all resources under a single objective. Morality demands for everyone to stand behind a common goal. I find it very hard to stand by humanity's resource management. Even in a state of emergency I would continue with the way I can best manage.

Structures

A distorted society gives room for distorted ideas of life which in turn steer the society to an unsustainable direction. The increased welfare and the vanishing of resource understanding have probably walked hand-by-hand before and brought down most of the civilizations. The distortion is global. There's no beginning or end in the cycle of distorted evolution.

To resolve the situation, which is the responsibility of everyone and no-one, might be impossible with the current comprehension of humans, unless the nature throws us in the cold water or something very unexpected happens.

My own resource struggle

In the context of this writing, it's apt for me to tell of my own struggles with resource management. When I was in my twenties, I set my carbon footprint goal to that of a cave man. This extreme goal concentrated my own resources on the essential and removed disturbances. The most important prerequisites for life in the Finnish climate are heat and food. I limited my firewood usage to minimum and spent my bachelor years in 3-7 Celsius degree cottage during the winters. It was okay – the bed felt like a wonderful nest and food was saved. If you start with minimal requirements all achievements are pure joy.

I have worked alone since I was young and this made it possible for me to keep all the strings pedantically to myself. As a young adult I got interested in communality and started to gather communal experience by working in different communal projects. What I saw, was far from what the possibilities of a communal life could theoretically be. I decided to become a lone wolf again, to develop my model of sustainable living, and only then present the working solutions to others and invite them along.

I managed to create a working model but overestimated it's attractiveness. Making self-sufficiency popular took many years. When I met Maria, I had already somewhat softened my requirements. I couldn't have kept my resource management at the same level without breaking up the family. The pedantic in me has never gotten silent, it barks sometimes but has stayed in it's cage.

So, I carried out these resource practices by the strictest rule until the reality of a family life entered into the picture. Now, because of the School of Self-sufficiency, my resource management framework has started to resemble that of the modern society. During the period I was teaching the school, I ran afoul of my other responsibilities: I neglected my own farm and exhausted myself socially, so that our structural changes, or resource leap, would succeed. We let go a piece of our self-sufficiency to help others on their road to theirs. Hopefully the deed was beneficial, all things considered. After this successful leap it's time to return and start with the unfinished work at the farm.

This writing that deals with resources stems from these three phases of life. The outcomes of my comparisons are clear: both resource management techniques have their strengths and limits. The most familiar model is the society's dominant synthetic model: lightweight and unsustainable, considering the management of the basic resources, but offering pleasant standards of living by the cost of an exploiting economic system. A pedantic organic model is superior when resources are considered, but is hard (but not impossible) to apply when people are involved if there's no practical need for it.

I consider it my responsibility to document the organic model because the current abundant living conditions have produced little empiric information on it. Would this change, perhaps we'd have a possibility to create resource-sustainable communality. The kind of which humanity has drifted away from. Even though I have developed self-sufficiency by myself, I still have spent much time working on sociality! I talked a lot with local people so that our co-existence would function better. I have always got quite a lot of encouragement from my fellow human beings. I've spent a lot of time alone but still haven't felt mentally alone.

I haven't run out of energy during my life, maybe because I knew when to prioritize. I've often felt tired because I've dedicated myself heavily. When I got into self-sufficiency, I stopped partaking in society indefinitely. I knew that both would not fit into my life simultaneously. Five years were spent in the mind's desert island and then I opened up again.

Finding a partner wasn't easy for me, so I lived as a bachelor for most of my time. Only when I was reaching my forties Maria came along, fittingly, when my wildest experimentations were left behind. That was good since they kept female company away. The phases of my life followed each other on their own in a suitable order without there being any plans about the timeframe.

Afterwords & dedications

I needed much time to contemplate, check and organize my observations for this writing dealing with resources. My way of classifying resources is unusual and this is my attempt to broaden the ways of thinking about them.

Another, partly unconscious reason for the postponement, was the delicateness of the subject. When we are observing resources, many things dear to us appear to be not so good anymore. Not talking about difficult subjects seems to have become political and is probably one of the reasons why global development is falling even deeper into unsustainability.

While writing in a cloud of hopelessness, I was happy to get acquainted with the Amish culture. It's easier for us to understand their lifestyle and resource management than those of the indigenous people. They don't have ways to preserve their culture like many ethnic minorities. They treasure their work-based lifestyle. There's no place for laziness in their lives because they recognize the importance of work. Their contribution to working is determined by age and health. Elders don't need to be sent to their deaths because adolescents learn early on how to maintain the prerequisites of life. The Amish seem to have less of the modern problems (health,

psychosocial or those concerning the nature) because their lifestyle is supported by a sustainable resource framework. Even our nature conservation doesn't get near that kind of sustainability.

I don't usually refer to examples because I think we must ourselves find solutions to local problems. The Amish however, are a living example of having a functional and ecological resource system and I tip my hat to them. I dedicate this writing to their future-proof activities.^(#25)

The most functional resource solutions in history are pretty old-fashioned and have given birth to visions of morality, culture, society and family models. On the other hand, change needs new ideas and radicalness. How to develop a working lifestyle from these two starting points? Sometimes I see promising experiments on the micro-level. They are born where undogmatic radicalness and undogmatic conservativeness meet.

Lasse Nordlund, one happily shipwrecked Robinson Crusoe from the 18th century.

Notes

^(#0)There are multiple definitions of resources depending on whether the context is biological, economical or related to military science.

^(#1)There are references to my earlier writings which can all be downloaded on the School of Self-sufficiency's website: <http://omavaraopisto.fi>. The list can be found at the end of this writing.

Of all of my writings, "The Foundations of Our Life" is the most fundamental. In that writing I'm contemplating the relations between humans and nature. I'm trying to create an approach that's universal, as culturally independent as possible and which unites all people. We need food, warmth, clothing and shelter.

I consider this writing about resources to be a sequel to my main writing.

^(#2)A popular critique on civilization emphasizes the way humans utilize nature as one the main catalysts for the problems we're facing. We jumping out of the frying pan, to the fire by trying to completely avoid the utilization of nature, which is unavoidable for maintaining life itself. Attempting to live ideally leaves the dirty work to others.

(#2.1) Calculated based on the 2019 consumption (600 EJ). Source: <https://verdelehti.fi/maailman-tila/>

(#3) The footprint of video streaming and data traffic: <https://www.climateimpact.com/news-insights/insights/infographic-carbon-footprint-internet/>

On AI: <https://www.ciocoverage.com/openais-chatgpt-reportedly-costs-100000-a-day-to-run/>

"ChatGPT generates an average response of 30 words, it will cost nearly 1 cent for the company". On Google-searches: <https://googleblog.blogspot.com/2009/01/powering-google-search.html> "Together with other work performed before your search even starts (such as building the search index) this amounts to 0.0003 kWh of energy per search, or 1 kJ". When energy costs around 10 cents/kWh, a Google-search will cost 0,003 cents which is about 1/1000 of energy cost. I'd assume that the relationship between money and energy consumption are quite accurately the same because both use the same data centers, apparently.

(#4) There are different kinds of feedbacks. For example, there's a negative feedback between a pressure cooker and a safety valve: when the pressure builds up, the valve opens and the pressure decreases. In contrast, a positive feedback accelerates events like climate change.

(#5) In physics, the three-body problem describes how fast a precise mathematical calculability ends when dealing with chaotic dynamic systems. Calculating approximated values using numerical methods is sufficient for most cases. These methods should be used with caution if estimating events of the ecosystem.

(#6) "A simplified ecological energy flow represented in "The Foundations of Our Life" felt like a bold statement back in the day because it was just a result of my pondering. In 1992 I really delved into self-sufficiency to check if my theories in the book (First as an e-book, later as a printed book) and practice corresponded.

(#7) Before the fossil era, work and other resources were scarce. In the Babylonian law of Hammurabi, the world's oldest, from 1760 BCE. Cheating was not wise back then.

The Building Code of Hammurabi, Founder of the Babylonian Empire; earliest known code of law; translated:

228. If a builder build a house for a man and complete it, that man shall pay him two shekels of silver per sar (approximately 12 square feet) of house as his wage.

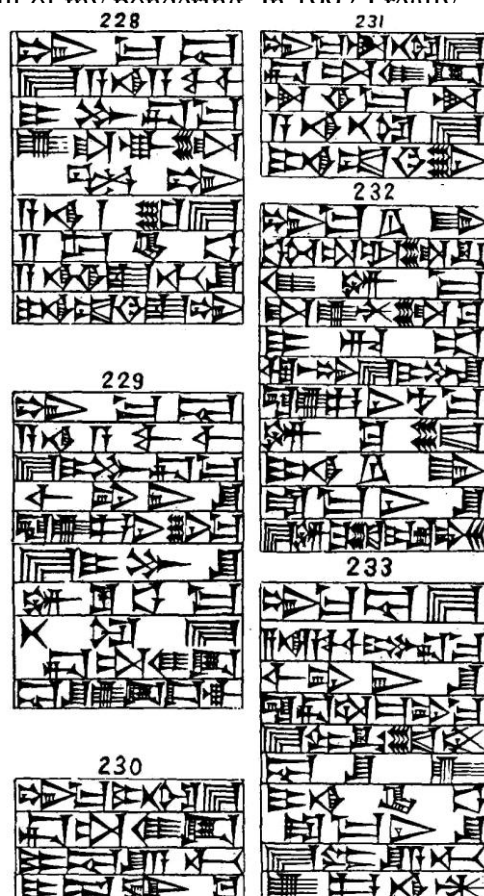
229. If a builder has built a house for a man and his work is not strong, and if the house he has built falls in and kills the householder, that builder shall be slain.

230. If the child of the householder be killed, the child of that builder shall be slain.

231. If the slave of the householder be killed, he shall give slave for slave to the householder.

232. If goods have been destroyed, he shall replace all that has been destroyed; and because the house that he built was not made strong, and it has fallen in, he shall restore the fallen house out of his own material.

233. If a builder has built a house for a man, and his work is not done properly and a wall shifts, then that builder shall make that wall good with his own silver.



(#8) If someone has more up-to-date information, calculated using modern criteria, please send it to me. Then again, my energy estimates from self-sufficiency are based purely on the “sweat-equivalent”.

(#9) About half of my work-time is spent on the planning of logistics. The phrase “measure twice and cut once” is not exaggeration.

(#10) I wrote about this in an early script of “The Foundations of Our Life”. I removed the section from the final book because I was unsure of my assumptions. After many communal experiences, I dare to claim that the resource cost of sociality is not recognized. I’ve been shy to write about the subject, always fearing to be picked on by humanists because the general opinion is that our culture is self-centered, and unsocial. I think this view is mostly a tendentious myth.

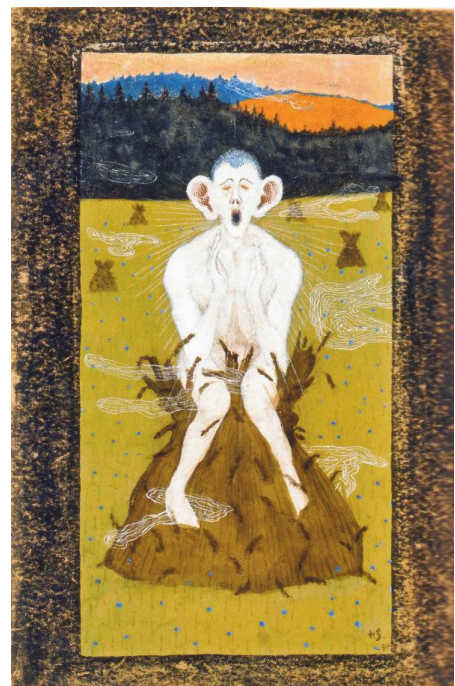
(#11) At the beginning of my communal experimentations, I thought that it’s good for a community to grow slowly from a small core group to a bigger one. When people know each other well, it’s time to welcome new members into the group. Later, I found out with others that the evolution won’t happen in such a mechanic way. The relationships are redefined with the introduction of each new member.

(#12) I read an article about human sociality in a 2009 issue of “Tieteen Kuvalehti” (A Finnish magazine about science). In a section talking about the sustainability of religious communities, there was a reference to a research of the anthropologist Richard Sos (See the list of downloads). This isn’t a proper source reference, but it’s an interesting question about resources. I noticed early on that I don’t have much time to examine the phenomena of life if I try to fulfill the expectations of scientific publishing. It became more important to talk about the big picture instead of concentrating on little things. I accept that my findings may be incomplete.

(#13) “Halla” (“Frost”), an incredible painting by Hugo Simberg. >>

(#14) I feel that there’s a narrow-minded view to sexuality in our culture which prevents it from being channeled into a life-supporting force. In Indian and Buddhist traditions, life energy and it’s harnessing have crucial roles. But even in Finland there’s quite an erotic saying: “Put seeds into a furrow and wait for fertilization”.

(#14.1) When I was young, I felt anxious about my friends car-centric leisure activities. It was easier to just announce that I



wouldn't enter into a car. Having less choices gave me strength not to develop a dependency to cars. Later this good fundamentalism turned restricting and I started to become it's prisoner. Absolute inflexibility would have prevented the development of the nice School of Self-sufficiency.

(#15) An energy pit is a state where the energetic state of a system is as low as possible and therefore stable. This concept of thermodynamics is a path towards entropy, the starting point of chaos. I like to use the term from time to time, carefully, as an analogy to other phenomena of life. Sorry about that!

(#16) This modern world of specialists offers an abundance of possibilities for a common laborer to work in the fringes of industrial activities. However, we then end up working as cleaning assistants, doing dumpster diving, recycling and freeing resources for the use of the system because it no longer has to manage it's expensive "irregular" backlog. Which one supports the alternative culture better: using a recycled clothing or making your own shirt?! Even if the skills are not needed right now, forgetting them will prevent going back, if that at some point becomes necessary. A human in a state of an emergency, and who knows the way back, behaves differently to the one who has no options.

(#17) When a healthy system is developing, energy and resources are freed for use by the reorganizing of the lower levels and flow upwards as a building blocks of newly formed levels. Those who believe in technology, claim that it could, in theory, produce the majority of the energy it needs internally and that the energy wouldn't have to be imported from external sources. If we leave this up in the air, we can ask if the theoretic potential of technology can manifest in the real world without it's price being tyranny?

In the early years of my self-sufficiency, I tried if the stakes placed by the upper levels of technology could pay themselves back. That was the base assumption, for which I got no confirmation in my experiments, except with very low-level technology. Usually the more simple method won, and I gave up experimenting like this. I started creating synergic low-level solutions instead. I have recorded similar resource observations also using programming (See the download links "Pieni tutkija" and "God").

(#18) The next organizing level could be e.g. a shared oven, oil press or cooperative in a village.

I used to live in a small village in Germany, where there was a shared oven. The turns for using the oven were scheduled for each day. Everyone brought their own firewood, which, if I remember correctly, consisted of filling the firebox twice with dry twigs. There were space for 20-30 breads simultaneously in the oven! This was affordable only when the oven was

continuously in use. I assume the tradition has died out since it'd no longer necessary because of the resource abundance.

(#19) I have utilized this throughout my life with good results. I still combine the outputs of my whole life together – information, old drawings, disassembled electronic components from my childhood, recordings etc.

(#20) I notice again and again how design and architecture carry us towards resource extravaganza. Stylish clothing seems hard to work in, difficult to clean, being impractical and perhaps even dangerous. The human mind yearns for uncommon things. The mirror images of the country site were anti-work symbols, like idleness. Hip-hop pants prevent working as efficiently as a shirt with a frill. Antique lamps absorb a considerable amount of the light and a lifestyle makes it clear that it's only for making others jealous. Even so, I think that “uncorrupted” aestheticism is a good guide for making it in natural economy. Unconscious archetypes of sustainable construction and functionality are hidden in there. They are revealed mostly through intuition.

(#20.1) Note: a passive mind can shift into a victim mentality, which tells a strong and a compelling story! By the way, I pretty much consider the idea of “free will” in our culture to be unrealistic and just a culture-specific ideological contract.

(#21) This might also have to do with personality types. I have noticed that our personalities are within two extremes: the analysts and the holists. When an analyst discovers a fault in a machine, they disassemble it and find the cause. The holist might at first step back, think about the machine and then come to a conclusion that they don't need it at all! These different approaches are so fundamental that I'd assume they are caused by the way the brain handles information. It might stem from the evolution where personality types complement each other in a social group. After having done teaching, I have learned that neither type seems to be able to embrace the other method except by “simulating” it.

(#21.1) “Money is stronger than us” is a pamphletic phrase to state the obvious.

<http://omavaraopisto.fi/wp-content/uploads/2021/07/Raha-on-meita-voimakkaampi.pdf>

(#21.2) The rebound effect was described exceptionally funnily in an introduction of a book about programming: programmers have always known how to spend the resources offered by an evolving hardware.

(#22) An attempt to protect the accumulated capital is consuming resources, so an advanced (the current) society is resource-intensive by design. Nuclear plants need to be protected from terrorists and data centers from hybrid warfare. When system levels are increased, safety must be

invested in by increasing resources. Modern technology is a manifestation of a complex resource economy and in part very risky. Sometimes it can reserve the energy it needs by violence.

(#23) This is an archaic mechanism: becoming unattainable. Throughout the animal- and human kingdom's partner selection, it's tested if the potential mate will do enough during their conquests. One mustn't be too unattainable for the competition to work. In politics and societies this model is surprisingly present in power struggles. If everything goes well, the one who leaves the negotiation table shouting, is the one who's desired. In that situation the one who's less dependent (=the most self-sufficient) is in the strongest position and will then write the rules.

(#23) Megatrends are self-sustainable definition systems whose actors are meme-duplicating groups of people.

(#25) I quote a couple of the Amish statements from Wikipedia which concern their resource economy:

- The Amish children go to school until the 8th grade because the Amish consider it to be enough for their lifestyle.
- The Amish don't really use preventive healthcare or do medical checkups, but go to see the doctor only when they are ill.
- Using a phone is permitted but not owning one.
- The way the some Amish men dressed was endangered in the 1970's when the law started to require using helmets in construction sites.
- The Amish think that the technological advancement has gone too far. A simple life is ideal, so they live their lives and practice agriculture using traditional methods.
- The Amish rhythm of life is slow and unhurried in every way.
- The Amish don't have a a central organization structure but the communities are independent. The organization structures of the Amish are loose and ambiguous, and they don't have bureaucracy, headquarters or CEOs. Instead, the community is a net of personal relationships.
- The Amish don't consider pleasure as a bad thing and they accept smoking, good food, leisure, humor, play and marital sex.



The illusion of working together

Further reading

“The Foundations of Our Life”

http://omavaraopisto.fi/wp-content/uploads/2017/12/FoundationsOfOurLife_3_2010.pdf

”Merkintöjä työmailta”

<http://omavaraopisto.fi/merkintoja-tyomailta/>

”Pieni tutkija” and ”God -Simulaatioohjelman esittely”

<http://omavaraopisto.fi/metsayliopisto/>

”Omavaraisuus on optimointia”, Elonkehä 1/2023

http://omavaraopisto.fi/wp-content/uploads/2023/03/OmavaraisuusOnOptimointia_EK2023_1.pdf

“The behavioral ecology of religion” Sosis, Bulbulia

https://drive.google.com/file/d/1aql3RH8iWnG2jnfWyX_oZcVBK9MA2_0/view?usp=share_link

”The Dawn of Everything: A New History of Humanity”, Graeber & Wengrow, 2021