

JYU DISSERTATIONS 676

Marcus Petz

Community Currencies

A Mechanism for Rural Renaissance,
Promise and Practicalities



UNIVERSITY OF JYVÄSKYLÄ
FACULTY OF HUMANITIES AND
SOCIAL SCIENCES

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Front cover: Geodesic Dome: Kotatalkoot still frame by J. Sinkkonen & Sydänlanka.

Image shows a geodesic dome created in NomadTown, Joensuu. The geodesic dome holds a position within the sacred geometry of contemporary society. Commonly, it represents an alternative way of thinking from the dominant architectures and structures of our society.

When scaled up, a geodesic dome is a stronger, more durable structure than a square construction. Walther Bauersfeld made the first geodesic dome in Jena in 1922. The dome's presence implies that alternatives improve upon the mainstream alone.

Here, the dome visually represents building a new reality, which Buckminster Fuller's work¹ popularized. Fuller began the process of promoting geodesic domes at Black Mountain College—a radical educational college in North Carolina (Brandstetter, 2015).

The new reality is a distributed one rather than a hierarchical one. For settlements distributed means a web of small communities that connect with vitality, rather than large, soulless conurbations. Villages and not cities.

Back cover: Tesseract: Schlegel diagram created by Jon DuBois.

Here ends the thesis with an image of a tesseract. The tesseract captures movement in time progressing within a frame of other dimensions and is part of the sacred geometry of our time. The tesseract shows past, present, and future, along with connecting networks of flows. The tesseract should be seen in motion to see these flows, not in a still image as above.

Networks get stronger as they grow, but a snapshot without imagination, as here, can only be a representation of an element that lacks vitality. It is the currents or flows that bring about vitality. As a human-made model, it displays equilibrium in its manifestation and lacks the growth and decline of true life.

As my thesis is a qualitative and not a quantitative thesis, I believe flows must be seen, not only grasped as ideas via words, and the tesseract visually symbolizes flows in motion. Charles Howard Hinton (1888) invented the tesseract in the book *A New Era of Thought*. Since then, it has influenced romantic scientists and artists to explore possibilities.

¹ <https://archive.org/details/buckminsterfuller> , "You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete." Attributed to Fuller in, *Beyond Civilization: Humanity's Next Great Adventure* by Daniel Quinn (1999:137) from Three Rivers Press. Quinn gives no quote source.

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MONEY INSTRUMENT

We are weighed by many measures
whether a person is good or bad.
Even if the money scale is used —
it measures the value of man.

—Leena Pirinen²

² Isola, A. & Larivaara, M. & Mikkonen, J. (Tiede, taide ja köyhä kansa ry [Association for Science, Art and Poor People]): Everyday Experiences of Poverty: Self-administered Writings 2006 [dataset]. Version 5.0 (2011-03-23). Finnish Social Science Data Archive. -FSD2413 <http://urn.fi/urn:nbn:fi:fsd:T>

ABSTRACT

Petz, Marcus

Community Currencies: A mechanism for rural renaissance, promise and practicalities

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Conventional macroeconomics regards money as a neutral tool. Neutralization gives rise to the problem of mediation, where money is an abstraction from the real flows of goods and services. Money then acts as an alienation technology distancing us from the biocultural landscape. These abusive money relations damage the rural relationships, which are essential for our survival.

By using an integral economics approach focusing on people, their relationships with each other, place, and the environment they are embedded in, we can better understand the disconnection and be prompted with healing solutions. Neutral money hegemony and culture are challenged from within community economics by using different 'forms of money' and 'near money.' As a participant observer, I investigated 6 case studies of such schemes in Finland:

i) The Neocracy, which uses Karma, Neco, and Collexa cryptocurrency tokens, via the stackchain, to transform the economic, political, and social systems to a non-monetary economy as part of the great transition. ii) VTS housing foundation's Pisteet kotiin points system, that supports "a solid foundation for good life." Points reward rent-paying with vouchers. iii) BookMooch, a book-exchange service based on mooch points. iv) BookCrossing, a book-sharing economy. v) Sysmä village's local QR-coded hyper-local currency, which was used as a system of account to encourage local business trade to stimulate endogenous growth. vi) Further conceptual development around flows of knowledge and other capitals was explored at the resilience hub NomadTown. There, action research with the rural NGO Sydänlanka ry spread ideas and showed how to live more ecologically.

These schemes cover people building societal alternatives more sensitive to ecological and happiness economics. To contextualize with the macro-economic system, I used Schumpeter's concept of the economy based on a critical figure, business cycles, and monetary theory as a theoretical framework. I looked at them via a community economics lens operating for rural resilience.

I incorporated Gunnar Myrdal's Circular Cumulative Causation, the virtuous circle and circular economy. I used current-sees (the symbol systems to make flows of capitals at different levels visible). The Banjar system of Bali and the Neocracy were exploited using methodological utopianism through its archaeological mode. Thus, I developed simulacrum case study research so engineering flows to support rural areas is a promising possibility.

Just as monies flow as currencies, so do ideas, knowledge, cultural ways of being, and more. The concept of current-sees looks at these flows. In the Finnish cultural context, the mutualistic traditional rural talkoot culture is a haunting inspiration that can be supported with community currencies. By mediating different flows we can take practical action to create alternatives to neoliberal capitalism.

Empirically, the research highlighted that the purpose of local currencies is to promote a more ecologically and economically sustainable world by strengthening communities of place, and communities of interest, as communities of use. Such alternatives can bring forward-resilience to our communities as part of the resilient state.

By using different current-sees, as we do with ledger systems like those used with the Neocracy, BookMooch, and Pisteet kotiin, we can fight rural decline (young people leaving for the cities; unemployment; social exclusion; or in-active aging), which is needed for a viable countryside.

Keywords: community economics, ecoliteracy, economic geography, integral theory, community of use, ecocentrism, cryptocurrency, near money, positive blockchain, DLT, liquidity

TIIVISTELMÄ

Petz, Marcus

Meidän Oma Raha: yhdiskunnan oma valuutta maaseutualueille. Käytännön mekanismi maaseudun tulevaisuuden renessanssiin

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Tavanomaiset makrotalouden näkemykset pitävät rahaa neutraalina välineenä. Tämä synnyttää ongelman, jossa rahasta irtoaa todellisista tavara- ja palveluvirroista abstraktioksi, mikä puolestaan lisää etäisyyttä käsinkosketeltavaan todellisuuteen. Raha toimii silloin teknologiana, joka vieraannuttaa meitä entisestään biokulttuurimaisemasta. Nämä vääristyneet rahasuhteet luovat etuoikeuksia kaupunkeihin tavalla, jotka vahingoittavat maaseutusuhteita, jotka puolestaan ovat välttämättömiä selviytymisellemme. Instituutitalouden lähestymistapaa käyttämällä osoitan tässä tutkimuksessa, kuinka yhteisötalous haastaa neutraalia rahahegemoniaa ja -kulttuuria, käyttämällä erilaisia rahan muotoja ja lähirahaa Suomessa. Noudatin tapaustutkimuksen tutkimusmetodologiaa osallistuvana tarkkailijana kuudessa eri tapauksessa, joissa yhteisöpohjaisia talousjärjestelmiä käytetään jokapäiväisessä elämässä:

i) Onnellisuus talouteen perustuva Neocracy, joka käyttää Neco, Karma ja Collexa kryptotokeneita. ii) Tampereen VTS-asuntosäätiön: Pisteet kotiin järjestelmä, luoda vakaa perusta hyvälle elämälle; iii) Kirjanvaihtopalvelut BookMooch ja, iv) BookCrossing. v) Sysmän kylän paikallinen QR-koodattu hyperpaikallinen valuutta. vi) Tietovirtojen ja muiden varantojen käsitteellistä kehitystä selvitettiin pidemmälle Joensuun NomadTownin verkosto- ja tapaustutkimuksessa. Täällä tekemäni toimintatutkimus auttoi perustamaan Sydänlanka ry:n Resilienssihubin levittämään ideoita ja käytännön esimerkkejä ekologisesta elämästä. Tutkitut tapaukset kattavat yhdessä pieniä, valtavirran ja kotitaloustalouksien marginaalialueiden yhteistyöryhmiä. Ne luovat toiminnallaan tiedostavia yhteiskunnallisia vaihtoehtoja, jotka ovat herkempiä ekologiselle ja onnellisuuteen perustavalle taloustieteelle.

Ymmärtääkseni, kuinka ne toimivat makrotaloudellisen järjestelmän kanssa, otin teoreettiseksi viitekehikseksi Schumpeterin talouskonseptin, joka perustuu kriittiseen luvun käsitteeseen, suhdanteisiin ja rahateoriaan. Sen jälkeen tarkastelin ekologista taloustiedettä maaseudun resilienssiä edistävän linssin läpi. Yhdistin Myrdalin hyveen kehän [Circular Cumulative Causation] ja kiertotalouden.

Tarkastelin Balin Banjar-järjestelmää ja Neocracy:ä simulakrumi-tapaustutkimuksen kautta. Tämä soveltava tutkimus kehitti metodologista utopianismia sen arkeologisen moodin kautta. Simulakrumi-tapaustutkimus antaa konkreettisen työkalun metodologiselle utopianismille tutkimalla ja analysoimalla utopianistisiä konsepteja yhteisövaluuttojen virroissa, liikkeissä ja datassa. Olennaiset käytännön elementit tunnistettiin, jotta tämän kaltaisten virtojen suunnittelu muissa tilanteissa loisi lupaavan mahdollisuuden maaseutualueiden tukemiseksi.

Empiirisesti tapaustutkimus osoitti, että yhteisövaluuttojen tarkoitus on edistää ekologisempaa ja taloudellisesti kestävämpää maailmaa vahvistamalla paikallisyhteisöjä ja mielenkiinnon kohteiden ympärille kerääntyneitä yhteisöjä niiden käyttöyhteisöinä. Tällaiset vaihtoehdot lisäävät tulevaisuuden sietokykyä – resilienssiä, yhteisöissämme. Samoin kuin rahat virtaavat valuuttoina, niin tekevät myös muut yhteisön varannot, kuten ideat, tieto ja kulttuuriset tavat. Varavirtojen [current-sees] käsite tarkastelee näitä virtoja. Välittämällä erilaisia varavirta-näkemysiksi, kuten teemme pääkirjajärjestelmissä, kuten Pisteet kotiin Neocracyssa, ja BookMoochissa, voimme torjua maaseudun rappeutumista (nuorten lähteminen kaupunkeihin, työttömyys, sosiaalinen syrjäytyminen tai ikääntyvien passivoituminen), ja siten elävöittää maaseutua. Talkoiden ilmentämää suomalaisen maaseutukulttuurin henkeä voidaan tukea yhteisövaluutoilla. Luomalla käytännön toimina vaihtoehtoja uusliberaalille kapitalismille suomalaisessa kulttuuri-kontekstissa näitä erilaisia pohjavirtoja ohjailemalla.

Avainsanat: ekolukutaito, ekosentrismi, heterodoksinen taloustiede, kryptovaluutta, likvidiys, talousmaantiede, integraaliteoria, positiivinen lohkoketju, DLT

ZUSAMMENFASSUNG

Petz, Marcus

Gemeinschaftswährungen: Ein Mechanismus für dörfliche Renaissance, Hoffnung und Anwendbarkeit

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Herkömmliche makroökonomische Perspektiven sehen Geld als neutrales Instrument. Daraus ergibt sich das Problem der Mediation, dass Geld von den realen Waren- und Dienstleistungsströmen abstrahiert wird und uns so unserer gelebten Realität entfremdet. Geld fungiert dann als Entfremdungstechnologie, die uns weiter von der Öko-kulturlandschaften entfernt. Diese missbräuchlichen Geldbeziehungen haben das Urbane in einer Weise privilegiert, sodass jegliche ländlichen Beziehungen, die für unser Überleben wesentlich sind, beschädigt wurden. Durch die Verwendung eines ökonomischen Ansatzes, der sich auf Menschen, ihre Beziehungen zueinander, den Ort und die Umgebung, in die wir eingebettet sind, konzentriert, können wir jegliche Trennung besser verstehen und heilende Lösungen finden. Daher zeige ich in dieser Forschung, wie neutrales Geld, Hegemonie und Kultur innerhalb der Gemeinschaftsökonomie gegenübergestellt werden, indem verschiedene Formen von Geld und Beinahegeldern verwendet werden. Um diese Herausforderung zu operationalisieren, verfolgte ich 6 Fälle: Die Neocracy, welche auf Glücksökonomie gegründet ist, verwendet Karma-, Neco- und Collexa-Kryptowährungstoken über die „Stackchain“; Die VTS-Wohnungsstiftung, die mit ihrem Pisteet kotiin-Punktesystem „eine solide Grundlage für das gute Leben“ unterstützt; Buchtauschdienste BookMooch, basierend auf „smoochieren- und moochen-Punkten“; und BookCrossing einer Sharing Economy; Die lokale QR-codierte hyperlokale Währung des Dorfes Sysmä. Die weitere konzeptionelle Entwicklung in Bezug auf Wissensflüsse und andere Kapitalien wurde in Netzwerk- und Fallstudienrecherchen rund um des Resilienzhub NomadTown, untersucht. Hier half meine Aktionsforschung bei der Gründung des ländlichen Vereins Sydänlanka ry Resilienzhub, um Ideen zu verbreiten und aufzuzeigen, wie man ökologischer leben kann. Insgesamt decken die untersuchten Programme kleine kollaborative Gruppen von Menschen ab, die sich liminale zum Mainstream-Ökonomie und Haushaltsökonomie für den Aufbau gesellschaftlicher Alternativen einsetzen und sensibler für ökologisches und feministisches Wirtschaftsbewusstsein sind. Um zu verstehen, wie sie denkbar heissen mit dem makroökonomischen System zusammenarbeiten, habe ich Schumpeters Konzept der Ökonomie basierend auf die kritische Ziffer, Geldkreislauf und Geldtheorie als theoretischen Rahmen genommen. Ich habe aus Myrdals „Circular Cumulative Causation“, den positiv Kreislauf und die Kreislaufwirtschaft einbezogen. Sicht betrachtet, um gemeinschaftsökonomischer Sicht, um die Widerstandsfähigkeit des ländlichen Raums zu stärken. Mithilfe das Banjar-Systems von Bali und die Neocracy habe ich durch den methodologischen Utopismus in seiner archäologischen Modus Simulakrum-Fallstudienforschung entwickelt. Auf dieses Art die wesentlichen, praktischen Elemente wurden identifiziert und methodologische Utopismus praktische Möglichkeiten für Veränderungen gibt. Der Zweck von Gemeinschaftswährungen besteht darin, eine nachhaltigere Welt zu fördern, indem Orts- und Interessengemeinschaften als Nutzungsgemeinschaften gestärkt werden. Solche Alternativen können die Resilienz in unseren Gemeinschaften voranbringen. So wie Geld als Währung fließt, so fließen auch Ideen, Wissen, kulturelle Seinsweisen und mehr. Das Konzept der „current-sees“ betrachtet diese Strömungen. Indem wir verschiedene „current-sees“ verwenden, wie wir es mit Kassenbuch (Ledger) Systemen tun, wie sie bei BookMooch, Neco und Pisteet kotiin verwendet werden, können wir den Niedergang des ländlichen Raums stoppen. Die traditionelle ländliche Talkoot-Kultur Finnlands ist eine eindringliche Inspiration, die mit Gemeinschaftswährungen als praktische Maßnahme unterstützt werden kann, um Alternativen zu schaffen, indem diesen unterschiedlichen Strömungen Raum gegeben wird.

Schlüsselwörter: Gemeinwesenbasierte Ökonomie, Ökologische Bildung, Krisenvorsorge, Wirtschaftsgeografie, Integrale Theorie, Nutzungsgemeinschaft, Ökozentrismus, Kryptowährung, Beinahegeld, Positive Blockchain, DLT, Liquidität

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³ These quotes are from the 1915 poem *The Road Not Taken* by Robert Frost.

his nomadic networking of ideas. His connecting led me to John Rogers, Franz Nahrada, and Andrius Kulikauskas' orchard of independent thinkers. Joe Brewer's Earth Regenerators, along with Chit Chong, David Flint, Clive Lord, Biff Vernon, Rupert Read, and Caroline New, all helped to support an ecological grounding that gives a spiritual and political background to this work.

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LIST OF ORIGINAL PUBLICATIONS

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- IV*: Marcus Petz (2022).
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TABLES

Table 1	Summary of New & Old Paradigms Contrasted.....	86
Table 2	Methods in Articles.....	108
Table 3	Action Research & Projects	117
Table 4	New & Old Paradigms Explicated	216

CONTENTS

ABSTRACT

TIIVISTELMÄ

ZUSAMMENFASSUNG

ACKNOWLEDGEMENTS

LIST OF ORIGINAL PUBLICATIONS

TABLES

1	INTRODUCTION	17
1.1	Theoretical Framework.....	18
1.2	Conceptual Framework	20
1.3	Research Framework.....	23
1.4	Research Questions & Community Currencies.....	24
1.5	Summary of Original Articles.....	28
1.5.1	Article I: Sysmä Community Currency.....	28
1.5.2	Article II: When is Money Not a Currency?.....	28
1.5.3	Article III: The Politics of Money Utopias	29
1.5.3.1	Theoretical background.....	29
1.5.3.2	Article contents	31
1.5.4	Article IV: NomadTown, Manifesting the Global Village.....	32
1.6	Theses	33
1.6.1	Monetary Theory Thesis	34
1.6.2	Community Thesis.....	34
2	MONETARY BACKGROUND	36
2.1	The Problem of Money.....	37
2.2	Mutual Money in Motion	43
2.3	Community & the Econosphere	45
2.4	Weaving Community, Money Flows & Business Cycles.....	49
2.5	Near Money & Money in Use in the Community?.....	58
2.5.1	CCs framing & naming	58
2.5.2	A beautiful transaction, the aesthetic value of coins & notes ...	59
2.5.3	Commensurability of various parts of the money supply	61
2.6	Politics of Monetary Systems	68
2.6.1	Does it work?	68
2.6.2	Is it legal?.....	70
2.6.3	They won't allow it, if it works, will they?.....	71
2.7	Currency Systems	74
2.7.1	No Money Economy	76
2.7.2	Near Money	77
2.7.3	Pluralistic Monetary Economics	78
3	RURAL BACKGROUND	80

3.1	Focusing on the Rural	80
3.2	Rural Renaissance, Resilience, Regeneration, & Renewal	82
3.3	From Rural Studies to the New Paradigm.....	84
3.4	Economics for a Rural-based Existence	89
3.4.1	Economic circularity	90
3.4.2	Relational capital.....	92
4	RESEARCH POSITIONING	95
4.1	Personal Reflective Account.....	95
4.2	Integral Science	103
4.3	Econospheric Positioning	106
5	RESEARCH METHODOLOGY	108
5.1	Stages of Research.....	109
5.2	Case Study Research	111
5.3	Artistic Research Methods (ARM)	113
5.4	Ethics & Data Protection.....	114
5.5	Action Research.....	115
6	POLICY IMPLICATIONS	120
6.1	The Institutional Environment in Finland	120
6.2	Implementation in the Resilience State Framework.....	123
6.3	At the Bioregional Level	125
6.4	For the EU Level	127
6.5	From Welfare State to Awful State to a Resilient Society	130
7	PRACTICAL ACTION	133
7.1	Accounting & Finance.....	133
7.1.1	The lessening of accounting relevance.....	135
7.1.2	Value accounting or accounting for values.....	136
7.1.3	Earth Regenerators' financial ecology.....	137
7.1.4	Management accounting & governance	139
7.1.5	Community sources of financing.....	141
7.1.6	Resilient financing.....	143
7.1.7	Public mechanisms to facilitate financing	144
7.2	A Supportive Milieu for Community Currencies	146
7.2.1	Mutual Credit Services & the Credit Commons Society	147
7.2.2	Beacon projects & reputation building	148
7.2.3	Near money & points systems / special purpose money	152
7.3	A Network of Viable Villages in the Bioregion.....	153
7.4	Realpolitik for Community Economics	156
8	CONCLUSIONS.....	160
8.1	Deprecation of Community Currencies	160
8.2	Mediation of Flows in Restricted Environments.....	161
8.3	Vouchers for Services.....	162

8.4	Context of my Research	163
8.5	The Pattern of Flows.....	164
8.6	The Community of Use.....	165
8.7	Future Application and Theoretical Research.....	166
	YHTEENVETO.....	168
	REFERENCES.....	171
	APPENDIX: THE NEW PARADIGM OF RURAL DEVELOPMENT	216
	ORIGINAL ARTICLES	

1 INTRODUCTION

This publication is a thesis. It is an article thesis rather than a monograph. Article theses for the Department of Social Sciences at the University of Jyväskylä consist of 3–5 articles, which are “peer-reviewed scientific publications, or manuscripts approved for publication” (UoJ, 2021).

These articles should connect to form a theme. In the four articles included in this thesis, the theme is the flows within *community-based economics*⁴. Beyond such broad theming, I further narrow the study to consider *community currencies* for application in a rural context to build a forward-resilient ecosocial, bioregionally-based culture.

⁴ Community-based economics is also known as community economics. Scholars use a variety of terms. Community economics (Eskelinen et al., 2020); community economics (Schaffer et al., 2004); “community-based exchange systems” (Greco, 2001:21), and community economics (ibid.:113); community-based economy (Elsen, 2019). However, many do not use any term in most of their works. For brevity, I will use community economics.

There is nuance in the use of the word ‘based’. Based implies that the economics is based on the community or communities that are generating economic activity endogenously, perhaps even reaching for autarky, or rather, “economics for community is concerned that the nation not depend on others for its necessities, that it be, not autarkic, but self-sufficient in necessities.” (Daly & Cobb, 1994: 332).

Greco (2001:191) talks about an economic base, wherein “Every community has an “economic base,” which is composed of its natural resources, built-up infrastructure, productive capacity, the skills of its people, and so forth.” Greco’s concept is the opposite of what conventional economics means by basic. Rather, as Poinot & Ruault (2019) state, “Economic-base theory is a conventional theoretical framework used to describe the main short-term factors of regional (or local) economic development, with particular relevance to small regions (Aydalot, 1985; Davezies, 2005, 2008; Krikelas, 1992; Schaffer et al., 2004; Thiebout, 1956; Vollet & Dion, 2001). It posits that money inflows from other regions (i.e., external revenues) are the main engines of economic activity at local level.” Many aspects spring from this distinction. That distinction of economic development is related to an emergent property of different regions interacting, rather than an autopoietic process; see Trandafir (2017) for a review of autopoietic systems in economics.

This discourse on community versus community-based hints at the origins of this field of economics. The field developed from ideas around development, and development cooperation, where community-based approaches are common. Rural development, urban development, and international development do have differences, yet as sister fields of application, they have much in common, and community economics is pertinent to them.

The connections and theses within this frame comprise the first part. The articles make up the second part. To qualify as a valid article thesis, at the University of Jyväskylä, the doctoral candidate (me, Marcus Petz) must author the articles. I authored Article II and Article IV.

Exceptions to sole authorship on a paper are allowed if the paper was a joint project with “several authors” (ibid.) and the doctoral candidate did a sufficient amount of the work, which is “clearly described in the summary of the dissertation” (ibid.). This condition applies, as I authored Articles I and III, with some input from my supervisor, who is credited as the second author.

1.1 Theoretical Framework

The separation between humanity and the natural world is a peculiar division, but one that is frequently made in the anatomizing praxis of modern sociology. Cf. Sawday (1995) for more on this “anatomising urge” (Dale, 2001:83). A further exclusionary division is found when we pare the political from the social, or even the economic from *political economy*, which has become known by the term *economics* (Paganelli, 2020; Kenton, 2023).

Along with our distillation praxis, fractions of other important things are lost or deemphasized (many economists regard them as largely irrelevant *externalities*, and thus to be ignored), which is troubling when we seek to identify how we might frame community economics and the communities of relevance to their study. The places of the marginalized turn liminal in such framing.

During this winnowing process, our focus when discussing public policy is similarly affected., e.g., the Polis Program:

With its impetus to extend the benefits of modern city living to a greater number of urban citizens, to fix urban problems, and to use the powers of the state to re-distribute social goods and stimulate social cohesion, ... [it] constitutes an exemplar of state intervention within a welfare logic that seeks to be a corrective to the logics of capitalist accumulation. The Polis Program **puts the urban at the core of state politics**, of normative judgments of what the city should be. Moreover, this interpretation resonates with the governance approach proposed by policy-makers to deliver the Polis Program. **Fixing the “unplanned country” meant encouraging a “new way” of city living..**⁵

Thus, there is an internally consistent logic. That logic brings with it urbanization, with centralization as a policy framing (Harvey, 2006). The corollary of such framing is that large corporations (Korten, 2001) are considered the suitable direction and focus of policy interventions. Big business first is the dominant praxis, even if not the one favored by all ideologies.

In the dominant contemporary (patriarchal) economic approaches, the worker (often seen as an element of the corporation) or the individual (seen as a consumer, who is tied into this corporatism) typically trumps the family or community in a storm of generalization and biopolitical relations within the

⁵ Baptista (2013:600), my emphasis in bold.

milieu (Arendt, 2018 [1958]; Agamben, 2017). In the world of corporatism, tools of community economics, such as community currencies, are left with little space where they are considered worthy of our attention.

Awareness that there is an economic system means there must be a conception of what that is and how it operates. There is a realist perspective that suggests how it manifests now, which strays toward more metaphysical interpretations of the dynamism within the system over time. Such interpretations must account for human relations, the movement of goods and services, the place of money, and money relations over the short and long term.

Varied conceptions from different schools of economics take these aspects into account. In many cases, these schools can be thought of as complementary, rather than contradictory, as they deal with different domains. By careful selection of school and thus domain I see how an economy operates at the community level, without needing to accept macroeconomic assumptions about how a globalized economy operates. By analogy, a dentist does not deal with the same issues as a dietician, yet both deal with the body. There is an interplay between both. Reflux from the stomach can damage teeth (Cengiz et al., 2009), while poor dental hygiene can impair nutritional intake (Kotronia et al., 2021).

The mainstream economics approach is called *the neoclassical synthesis*, or increasingly, *the new neoclassical synthesis*. See Case et al. (2020b) for details. Simplified, it is principally: individualist economic behavior, as classical economists, such as Adam Smith (1904 [1789]) conceived; combined with macroeconomic modeling, the use of fiscal policy, and investment, as John Maynard Keynes (1935) and his followers added to classical thinkers' ideas. A further addition of the monetarism of Milton Friedman (1974), the idea of money supply changing economic conditions⁶, makes the new neoclassical synthesis.

See O'Boyle (2007) for how the mainstream approaches problematically manifest in scholarly praxis, norm, and create a framing that predicates what we exclude (mainly community and reciprocity under the idea of *homo economicus*, as a self-centered individualist), and what we should include (as "homo socioeconomicus [who] is at once an individual being and a social being").

Stiglitz (2010) labels the exclusionary manifestation on a societal level, after Schumpeter's critique, as the "equilibrium approach" (Schumpeter (1964 [1939]:183) calls it "the theory of static equilibrium"), and Somers (2008) claims its praxis as "market fundamentalism" is a problematic ideation with ubiquitous effects such as a monstrous devouring of civil society and the state. A counterview of that engorgement, perhaps by the Hobbesian Leviathan (Hobbes, 2017 [1651]), is one wherein the sovereign is the commonwealth of people controlling the merchant class. Thus, the question of economic sovereignty can be raised.

While this framing (and political philosophy) is concerned with the *macroeconomics* of large trading areas like countries and cities, not the

⁶ Friedman (1974) argues that quantitative adjustment has short term economic consequences, but not over the long term, where he tends to support the idea of money neutrality.

*microeconomics*⁷ of small communities (of villages and market towns) as found in the countryside, there is commonly a connection between both. As indicated, in my analogy of the alimentary canal, we might look at the local layer with the grander level and see how they interrelate when considering the economy. To give another analogy, we can think of optics and the objective in a telescope, which gather the disparate elements and allow us to connect them in a synthesis.

To synthesize the large with the small, I am applying flows along with the theoretical framework of cycles. Business and economic cycles have been considered by many thinkers, see Chapter 2 Monetary Background, and 3.4 Economics for a Rural-based Existence for details. Consequent to their scholarly research the existence of the shortest of time cycles is widely accepted. Furthermore, the Schumpeterian system (1964 [1939]) has merit for contextualizing the cycles, so I approach my research with his theoretical lens. Schumpeter's system is based on a critical figure⁸, which limits the size of the economy; with several cycles (3-5) of different duration. These cycles influence flows, not only within a milieu (as we might find in a small community), but also over the longer term and with a wider geographical scope.

1.2 Conceptual Framework

Schumpeter conceived of an economic arc (the longest cycle) that rises above stochastic effects or short-term cycles. In his case (1964 [1939]:138), he linked the cycles with entrepreneurs, and entrepreneurial pressure (or spirit or capital) as the (fuel for the) engine used to drive much of these flows. He linked this model with ideas around money, money relations, and what he called the "money tie" (Schumpeter, 2014:234).

The concept of current-sees, which are also flows, can conceptually work well with these cycles and flows. Strictly, current-sees are "the symbol systems to make flows at different levels visible" (Brock, 2011:m20:25). Although the current-sees and the Schumpeterian system are not necessarily contradictory, I am not fully in agreement with Schumpeter about some of his economic assumptions. These assumptions ground his model, and are close to the equilibrium approach, which is in turn conceptually founded on ideas about demographic factors and the gold standard, which I take issue with.

For me, the current-sees allow a more futurist conception about how economics could and, to some extent, will operate given my assumptions and framing. Here, rather than just a theoretical framework, I have a conceptual framework. My conceptual framework is a low environmental impact circular

⁷ Both macro- and micro-economics are problematic (as terms and semantically) as they tend to be based on an aggregation of individualistic behavior, i.e., homo economicus, and account poorly for emergent properties that may be found in indigenous, community, ecological, evolutionary, feminist, and other more collective economics. The level which these collective economies operate at can be called the meso-economic level.

⁸ Schumpeter uses the German word *Ziffer* [figure], not *Zahl* [count] nor *Nummer* [number].

economy. This economy is localized and takes into account the trends that are likely to wax, and must happen to cope with the effects of climate change.

I am researching in consideration of an economic system that operates in a forward-resilient (Revell & Dinnie, 2020), transformative economy (Henfrey & Giangrande, 2017). It is transformative in the sense that it is undergoing a great transition and, after that transition, will be operating differently from the way the current economy operates. Part of the conceptual theories for such operations work at the community or household level, and so we should consider schools of economics accordingly.

The more communal alternative of *household economics*, which is less patriarchal, was only recently recognized as academically worthy of study (Zelizer, 2000, 2001). The inclusion of various *capitals* (not only financial) (Coulson et al., 2015), along with this recognition, which further extends the same consideration to *money relations*, is slow in coming. See Gómez & Dini (2016) on different conceptions of the nature of money and thus how a more complex understanding leads to a wider consideration. This extension, both in terms of economic heterodoxy, and communities (which I focus on rather than at the household level) worth considering socially, is the focus of community currencies.

I focus on the rural milieu. There is an argument that the urban milieu should be the focus (based on population numbers, e.g., the ECAP Final Report (Watson et al., 2018:1), which looks at “embedding a circular economy approach,” focuses thus). However, the rural is more sustainable, and instead, we should focus on how economics can operate in the ruralities.

I take a bioregional view and wonder about how settlements operate in a network within the bioregion⁹. I believe the level of settlement should be that of viable villages. Such villages should connect as thematic villages using technology (not only financial, monetary, and economic, but social technologies too). I am not alone in this conception, it is shared by Earth Regenerators (Brewer, 2021), Global Villagers (Nahrada, 2022; Dower, 2013), and eco-anarchists (Jensen, 2006; Zerzan, 2012; Berg et al., 2009; Bookchin, see Tarinksi, 2021), who formed part of the milieu I interact within.

Hence, another alternative economic school might be apposite, one with a rural, more agrarian perspective. Perhaps *peasant economics*? Peasant economics is described as partial and somehow not proper (see de Janvry et al. (1991) for

⁹ “A bioregion is a geographic area defined by natural characteristics, including watersheds, landforms, soils, geological qualities, native plants and animals, climate, and weather. These characteristics are continuous; in other words, when there are changes in these characteristics you’ve gone from one bioregion to another. Obviously, these borders are soft and wide, as opposed to linear and sharp in the present geopolitical sense of “boundary.” Bioregionalism includes human beings as a species in the interplay of these natural characteristics. It promotes an inhabitory attitude by which humans adapt themselves to the natural characteristics of a bioregion in an appropriate way. At this point in history such an attitude exists only among so-called primitive people or as a matter of historical record. For most people on the planet today it would be necessary to become a reinhabitant in order to fit into the natural characteristics of the bioregions they occupy. A bioregion is a geographic terrain and a terrain of consciousness. It is a cultural idea based on characteristics usually associated with the natural sciences. Put simply, a bioregion is a “life-place,” the natural place around you that’s alive and contains your life as well as the lives of other species” (Berg, 2014 [1998]).

different schools; and Panjek (2017:24) with an attempt to take an integrated position looking from the peasantry's perspective, where an "Integrated peasant economy" is ... an economy in which peasant populations and households made their living by combining self-consumption agriculture with market oriented activities.").

The absence of formal contracts and markets based on trust (Costales & Catelo, 2010), often found in rural economies, is made to seem inadequate rather than lean and flexible. The lack of 'rural finance' is presented as if financial capital is the only deficit worthy of consideration. Yet, when making a full *economic inventory*, it is important to consider deficits in cultural, relational, etc. capitals too.

Panjek (2017) and Douthwaite (1996b:31) extend peasant economics beyond the rural. Douthwaite defined "a peasant economy... [as] a society in which most families own their own means of making their livelihoods, be this a workshop, a fishing-boat, a retail business, a professional practice, or a farm" (31).

A similar analysis could be carried out on *feminist economics*, which, as a school, envelops the dynamics of inclusive gender relations, children, and families in its economic thinking. *Happiness economics* and *welfare economics* both measure 'utility' and are thus quite problematic for my research, as utility is biased toward individualism and not communalism. *Ecological economics* presents a theoretical framing that I accept. That framing is that the social and economic worlds are embedded in the natural world and must be considered in concert (see Paganelli, 2020 for how "humankind was part of nature" as an approach from the Scottish Enlightenment, which led to Adam Smith's praxis of the "science of man"¹⁰).

Given my approach and vision of how the world could be (viable village networks intimately embedded in bioregions), there is a direct proposition to consider this thesis as an institutional economics one. Here, the approach is to look at how society functions on a large scale. I have elements of that framing, when I consider the small communities and networks in which the studied flows operate. My concept of society (and thus the institutions) is not the nation-state, mainstream economics predominating in the discourse of institutional economics.

There are aspects of institutional consideration, which we can see in the work of Elinor Ostrom (2005), who considered how custody of natural resources might be managed as a *commons*, that I find of interest. Below, I do refer to some forms of organization, Community Interest Companies, kinds of banks, and other associations, but their forms are not the dissertation's focus.

Despite these points in favor of an institutional approach, I focus on a. the operation and flux of a monetary consideration, which builds community, in this case, a community of use, and b. the concept of flows and their mediation in small-scale situations. Hence, I consider this thesis best fits within community economics. Even so, the reader who came here from another school is not excluded, there is something here for them too.

¹⁰ Science of Man as a term comes from Hume (Christopher J. Berry (2012). "Adam Smith's 'Science of Human Nature'," *History of Political Economy*, 44 (3): 471-92 in Paganelli, 2020).

1.3 Research Framework

After stating that I am concerned with the community and not the level of the individual, nor the household, nor the whole of society, nor the nation-state, nor the supranational bodies, practical matters come to the fore. Those conceptual limitations shaped the program of research. My research methodology used techniques carried out with individuals such as autoethnography, interviews, and case studies and philosophically took a wider integral approach that encompasses a diversity found in the traditions of sociology known as bricolage (see Schwandt (2007:24-26) on bricolage/bricoleur).

I first looked at the *sysmä* scheme in *Sysmä* as a rural case study to identify the significant factors in shaping a community currency's trajectory in the socio-economic system. *Sysmä* led me to identify money / monetary policy, and the monetary ties as significant. Thus, I explored the concept of money and flows in my next paper, Article II: When is money not a currency?

I group the different monetary innovations looked at below as community currencies. Strictly speaking, they are not all community currencies. The *sysmä* was a system of account. The Banjar does not have a clearly used money unit, as might be expected if it were a currency (there is an absence of flows). VTS' Pisteet *kotiin* points, BookMooch points, Karma and Collexa tokens (both parts of the Neocracy) are restricted and so exhibit a low level of usability – usability is a property of money, explored in Article II. The Neco token fulfills all the properties of money – only there are few places it can be spent, so it can be questioned if the community bit of the term community currency applies.

Despite these limitations, all these innovations do form near-money and display elements of money, which makes them of scholarly and practical interest as tools within community economics. Such heterogeneity is found in community currency research; see Contreras, 2021; Williams, 1997; Schroeder, c2021, who are all connected with RAMICS (Research Association on Monetary Innovation and Community and Complementary Currency Systems), which publishes the IJCCR (International Journal of Community Currency Research) for the diversity found in the field.

It can be argued that these cases are community currencies. Article II discusses the first few, and Article III covers the last couple of schemes as to whether they are community currencies or not. I rely on my conceptions of money, currency, and community (which are explored in more depth below) to give the following pithy definition of what community currencies are:

Definiendum: Community Currency

Definiens: A mutual money in motion

Rather than focusing on these schemes, another research direction would have looked at, for example, rural interventions as policy; artistic interventions in rural areas; the practicalities of development spending; or something else. I limited my

research focus (to avoid digression that easily leads to procrastination and nothing productive) to alternative money forms and related technologies.

Subsequently, I thought about utopian and practical steps that could be taken and explored them in Article III on the Banjar and Neocracy. My idea of utopia is not one of unrealistic idealism, but a more hopeful dream of the possible. Thus, I looked at different implementations of monetary systems as case studies. The implementations were linked to the idea of an altered economic system and flows within it. Finally, there was a practical endeavor to bring, via knowledge of these flows of knowledge, the realization of, or at least the conceptualization of, a transformative network in accordance with the prior research.

To work toward that vision I tried: courses at the University of Jyväskylä and the Center of Contemporary Art Pispala; Wheels of Resilience, as a workshop as part of the #BURN___ thematic premise of Pixelache¹¹ and presented as a conference paper at the Sustainable Change (SUCH) research network's 4th Peaceful Coexistence Colloquium, and a nomadic project at the resilience hub NomadTown. These were all limited by the COVID-19 pandemic. NomadTown and a related project, supported by FINGO (Finnish Development NGOs Fingory), which I led as the principal investigator, gave the research material for the final article below.

My aim was not to see if it is possible to replicate the full mainstream economy, with minor differences, in some kind of cargo cult. Nor did I want to throw money at the rural and co-opt it into the urban. I sought, rather than verisimilitude and replication, more appropriateness. I want to know, which tools and techniques we could use to serve the needs of a different polity than those served quite well (debatably) by what we have.

1.4 Research Questions & Community Currencies

While I had at the beginning of my doctoral investigations, a clear idea of the theoretical framework (rural community functioning), the conceptual framework (a transition to a more forward-resilient society), and a program of work (several case studies with an action research element using a multiple capitals approach

¹¹ "Pixelache's #Burn___ theme is unique in Pixelache's long and varied history of thematic premises, in that it takes place over a two year period.

Its two parts are comprised of, in short form:

#Burn___ 2020 "Program" - which is an incubation and development year, focused on members' projects, 2021 festival design, and the legacy of the association.

#BURN___ 2021 "Festival" - in which we will host one of our larger festivals in the association's recent history...

#BURN___ is the thematic premise for these two years of Pixelache's cultural output as an association, which aims to connect conceptions and experience of psychological, social and environmental collapse, and how we can survive it, developing resilience. [Ed: As a nod to this spirit, I just wish to add that originally this text has a mix of 'program' and 'programme' used in it, because I believe that there's no 'me' in program. Deal wi it] (Maher, 2020), source: https://www.pixelache.ac/posts/2020-x-2021-the-relationship-between-burn___-program-and-the-burn___-festival

to build ecological, environmental, and social sustainability), it was unclear what to research. I knew it had to be around rural communities and be relevant to community economics. I had long been aware of community currencies when the opportunity to research one (the *sysmä*) appeared in the Finnish press. At the same time, another project (the Lake District Pound) was developing at the University of Cumbria.

I limited my study to community currencies and related technologies rather than the whole sphere of community economics. This limitation would allow enough time to research the field. Even so, the remaining aspects of money and finance combined with social exploration are quite wide, and much more depth could be achieved in concert with them. Linking these with macro-economic concerns and rural perspectives meant additional theoretical and research work.

In light of the possibility raised by the *sysmä*, I was most troubled by the use of a research question that seemed necessary to gain doctoral study rights. I had had conversations with Uwe Plachetka, an anthropologist concerned with rural regeneration, about why a research question was problematic. Plachetka (2011; 2020)¹² has used agricultural anthropology to bridge the gap between academic and practitioner cultures. We both took the position that, in some places, a research question has merit. In other places (such as agrarian environments), there are issues with what results from having a research question. A research question is a social technology (certainly when embedded in social relations and the full semantic field, which applies when considering what it imports, not just a tool), and as with all technologies, there are downsides. Later, I discovered the work of Paul Feyerabend, which covers some of our unease under the term “myth predicament” (Preston, 1997).

Put simply, the myth predicament can be summarized as a shoggoth. Shoggoths are daemonic monsters invented by the science fantasy author H.P. Lovecraft. These fictional monsters are put to use in construction by their creators, the Old Ones. They are created by the Old One’s thoughts and then act according to those thoughts. If the thoughts contain some imperfections, then the created shoggoths could go awry, as indeed they do in Lovecraft’s tales (Lovecraft, 2011).

So why is a research question a shoggoth? The concepts embedded in a research question limit and exclude other possibilities. For Feyerabend, they would become an irrefutable dogma—a myth. Feyerabend (1958a in Preston, 1997) wrote “whenever a fairly general point of view was held long enough to influence our expectations, our language and thereby our perceptions, and when during that period no alternative picture was seriously considered.”

Such untoward influence can happen all too easily with a research question. With my research question (see below), there is a possibility it could be read as one in favor of community currencies’ efficacy. It would be hard to seek to answer such a research question while believing in the absence of an economic system. But beyond the melodramatic and philosophical, there are other practical

¹² See 4.1 Personal Reflective Account for how a research question has embedded in it a certain cultural framing, in terms of science, that is alien to me. I would much prefer to be one of those scholars where “the goal is less to create a research question and more to specify an area of exploration” (Noblit, 2019).

reasons why a research question is problematic when researching the rural. Another social technology, the logical framework, is informative in these matters.

Rural development can benefit from the logical framework (Aune, 2000), which is used to create a bounded project space to operate in for development purposes. Such delimitation forces woolly and magical thinking away with measured objectives and findings. It is useful when focused action is required. Even so, there are cases where it is quite unclear – and never will be clear – what outcomes are desired. Such confusion, especially in a multifaceted situation, is often called a wicked problem¹³ (Haas et al., 2016; Rittel & Webber, 1973). Hence, the outcomes from the application of the logical framework can be suboptimal.

Serving a heterogeneous population with different values and aims cannot easily lead to a simplified research question. It is frequently so when serving rural communities; where there is promise (of amelioration), and (yet) practicalities intervene (viz., the title of this thesis), so there is no guarantee of success.

Thus, I had a dilemma. On the one hand, I wanted to act ethically and follow The Manifesto of Ethical Applied Development Research Principles (Petz, 2014, 2017b). If I made “my research aims, procedures and interactions with others transparent, open and useful” (ibid.) then a research question might contradict that, as it would close off some possibilities.

And on the other hand, the university would grade me based on my research questions being “defined and formulated” (UoJ, 2019). I was prompted by Torsti Hyyryläinen, when I asked about doing a PhD at the Ruralia Institute on the *sysmä*; with the question, “Do you think it will work?” But perhaps that question was too broad?

I resolve the dilemma by formulating a research question, in the awareness that it is a lodestar amongst a constellation of possibilities. Nearby stars may glitter and attract, yet they only need to be glimpsed at or referenced to the lodestar.

Here, I explore technologies (the constellation) connected to community currencies (the lodestar) within a community of use. Usage varies in terms of purpose, choice of technology, governance, etc. with the institutional environment in which the tools are used. A business (second sector) environment like Pro Team Investment GmbH, which lies behind the Neocracy, fosters differently from varied charity (third sector) environments. Third sector situations vary from INGOs (International Non-Governmental Organizations, e.g. FINGO with almost 300 member organizations) to small local associations

¹³ This dissertation holds, in the philosophy behind its main research question, just such a wicked problem. The problem of mediation is a wicked one as money neutrality or non-neutrality brings different approaches and outcomes. Additionally, the idea of the rural being ‘a problem to be solved’ is based on an outdated regional paradigm. Accepting the regional development paradigm would slide a premise beside ourselves, i.e., that the rural is a problem, rather than that the rural is suffering because of the problematic existence of how the urban manifests through scale effects that distort development toward large places rather than networks. To put it in medical terms, the problem with illness is not that the patient is vulnerable, but that the disease is aggressive. Hence, in the research question, I deal with that dyad by referring to resilience. Thus, I avoid ascribing the situation to the over-weakness of the rural or the over-bearing of the urban.

(e.g., Maaseutuyhdistys Sydänlanka ry). The institutional environment varies within first sector organizational thinking too, as I found in VTS¹⁴, and the Sysmä municipality. Nevertheless, these communities of use are the very ones I researched. In my investigations, I followed a meta-level research question:

How can community currencies work within an economic system to build rural resilience?

There are thus many sub-questions in the constellation of this main question. How can a community currency be used? Can it serve social, ecological, ideological, or economic purposes? Does it work directly or indirectly in an instrumental sense? How does a community currency function? What are the mechanics, governance, and legal aspects? Who can it be used by? Does it work for businesses, associations, individuals, and municipal bodies? What are the effects of CC use on a given community? What is an idealized CC, and how far from that ideal can we manifest a CC and expect it to work?¹⁵ Are the effects of community economic tools neutral, positive, or negative? What are the best practices for benchmarking a newly introduced local currency? What kind of economic system? What kind of resilience?

I focus on implementation within a rural environment, rather than an urban or corporate environment. I consider the implications relevant for a rural community. The articles contain sub-questions answering the meta-level research question. There is not a reductionist simple question with directly related simple decomposed sub-questions, but rather a series of occluding (or here enlightening) questions that collectively prompt conclusions.

The aim is a coherent ensemble of thematic elements in the tradition of social science, that draws from varied disciplinary backgrounds to create an integral work. A diversity of evidence is more powerful, and resilient to new research findings than a narrower selection, which is prone to sampling error and a lack of triangulation. So, read this research in that cultural and scientific context.

¹⁴ VTS-kodit [VTS-homes] is the trading name of Tampereen Vuokratalosäätiö sr [Tampere rental house foundation], sr is short for säätiörekisteriin and means it is an officially registered foundation. VTS is commonly used by the foundation, as I do in this thesis.

¹⁵ This is a fundamental question. Given the wide variety of schemes that can fall under the CC label, it is hard to know if we are truly evaluating a CC or something dissimilar in important properties. An analogous example is failed political ideologies: it wasn't proper communism; it is not a true democracy; Brexit would work—if done properly; etc. There are different ways to deal with this not-proper-community-currency claim. We can ignore the failed schemes. We can filter to only look at those running for a decade or more. We can ignore questionable features such as external funding. We can only partially investigate. However, we can describe what we find and try to find practical answers in the elements from the utopian efforts that are available. I follow the latter procedure via the archaeological mode (Levitas, 2013), see Article III for details.

1.5 Summary of Original Articles

1.5.1 Article I: Sysmä Community Currency

Rural areas have a low *relational capital*, and lower access to financial capital (Hornborg, 2009). The pressing need for rural finance, and its lack, is a driver for alternatives. One such alternative, community currencies, which are started in rural communities of place (often called local currencies), seek to stimulate local wealth, and strengthen local supply chains by increasing the *velocity of money* in the local economy. A higher velocity of a community currency, than a fiat currency previously demonstrated in an area, suggests a displacement from the exogenous money supply, and even de novo economic activity. Such increased velocity theoretically should bring a concomitant increase in the local *GDP* (de la Rosa & Stodder, 2015) and thus financial capital.

The rural community of place context of the sysmä community currency, was a motivating factor in researching it. The sysmä case study explored the drivers for a contemporary rural local currency. The article aims to:

Firstly, analyse the prospects of the sysmä (the name of the CC introduced in the place called Sysmä) in terms of its potential as a radical parallel currency (Brunnhuber, 2015); done by evaluating its implementation. The implementation covered the technical, financial, and institutional factors.

Secondly, analyse the relationship of different stakeholders to the community currency initiative in the sense of experienced ownership of the scheme and expressed attitudes towards it. A thick description of the political landscape; cultural interactions; and a marketing perspective on the sysmä, as a marketing innovation, looked at the non-technical aspects of the social context.

The case study facilitated acquaintance with the community currency environment for further research. Answers were sought to the question: What potential does such a complementary currency have in mitigating the area effects that a rural area suffers from? Specifically, to answer the question meant finding (within CC praxis) an (economic) stimulus to transition and localization, while identifying another dynamic as a viable alternative to rural decline and village death (Cartwright, 2013; Kotilainen et al., 2015; Pattison, 2004). Increased local wealth via a community currency could be that stimulus, but it was not found. Nevertheless, by giving a report on the failure of the community currency scheme in Sysmä a valuable contribution to the scholarly literature is made.

1.5.2 Article II: When is Money Not a Currency?

What is money? is a question with varied answers. The historical origins can be traced, yet they cover how money came to be and not the imagined fiction that money is. Social usage and collective understanding are important not only for how we conceive of money, but also for what we can imagine it can do, and how it can be used. There is a political question about purposing money and money relations, which encompasses sovereignty and the exercise of power. The article

explores the institutional enabling and inhibitory factors and implications for and from currency projects within Finnish communities.

Additionally, the demarcation problem between currency and money is considered in the paper. The technical issues around scale and purpose, if such schemes are to develop into fully functional currencies, are discussed. The concept of 'current-sees' proposed by the MetaCurrency Project (Brock, 2018), as "the symbol systems to make flows at different levels visible" (Brock, 2011:m20:25), is used as a lens to evaluate if the schemes achieve their purpose and whether further development is desirable or possible. The proto-community currency concept is developed.

After looking at a real-world operational case (Article I), I wondered which design aspects of community currencies contributed to successes or failures. I looked at new monetary forms' appearance, which required a deeper exploration of the properties and functions of money, currency, and capitals. Specifically, I investigated near money (Chan et al., 2016) proto-community currencies operating in Finland in 2018 and their functioning as *general purpose money*.

In my scientist (scientist-activist) action research approach, the research relates to communities I am a part of. I captured experiences of minority existences, the liminal, and cultures of resistance. These are vulnerable, to erasure or distortion, through the boorish domination of mainstream cultures acting in a hegemonic way.

While the article contextualized the fintech environment in Finland, it is too restricted a medium to solve the question, What is money?; give a comprehensive description of currencies (properties, functions, and synergies); investigate the essence of money (Greco, 2009), let alone the whole political financial ecosystem. Contributions were made to exploring *credit* as a function of money, questioning capitalistic approaches, and hinting at the utopian possibilities within *no-money economies* and *all capitals community money*.

1.5.3 Article III: The Politics of Money Utopias

1.5.3.1 Theoretical background

After Article I (the Sysmä case study), and Article II (looking at money and currency), I asked: What social reality are CCs operating in? A whole-systems approach seemed apposite to look at the social context, and beyond neutral money, to understand that reality. To explore phenomena at a societal level of complexity needs a grand philosophy. My co-author and I used an integral approach, which considers place, human society, and the natural world over time.

We decided rather than just a simple descriptive case study of the social context, that theoretical development and the practical application of theory would be a good basis for a paper. Our aim was to be useful to both scholars and practitioners (cf. Wicks et al. (2008:17) on grounding ourselves in the participative, interdependent ecology of life). As we were to consider quite a theoretical and conceptual matter within utopian studies I detail here some of the theoretical

underpinnings of our work. Not all this explanatory background is in the paper, so giving it here helps to contextualize the thinking behind the paper.

There are diverse ways to explore. For us authors, exploration is an attempt to achieve 'Verstehen,' which is our understanding of meaning via our subjective interpretations of what is going on. See Schwandt (2007:104-105) on explanation; and on verstehen (314-317) for a deeper explanation. We make meaning by truth-telling, i.e., "through exploration of the validity of propositions in communicative action in which participants aim at intersubjective agreement, mutual understanding and unforced consensus about what to do" (Kemmis, 2008:122).

In our paper, we were truth telling about systems, by which we took a structuralist positioning following Piaget's definition "of a structure [of which a system is one] as an arrangement of entities that are characterized by wholeness or internal coherence, dynamism and the capability of transforming or processing new material, and self-regulation," which Schwandt (2007:278-279) covers under structuralism.

Truths may be told by telling: of reality (cf. scientific realism in *ibid.*:256-259); of the imaginary by creative fictions (which follows the interpretive turn of many disciplines (*ibid.*:160); (Hiley et al., 1991) and is intimately entwined with the literary turn of social sciences (Schwandt, 2007:179-180) which is consequent of the contemporary increasingly literate society); or a mix - our just-so-stories (cf. ontological relativism in *ibid.*:256-259).

As scholars, with an integral approach, we carried out ethnographic naturalism of both strong (with experiential knowledge of the Neco) and weak (with armchair anthropology of the Banjar) varieties as we "remain true to the nature of the phenomenon under Study" (cf. *ibid.*:94 on ethnographic naturalism).

We were familiar with certain methodologies (by which we mean "a theory of how inquiry should proceed ... [which] involves analysis of the assumptions, principles, and procedures in a particular approach to inquiry" (*ibid.*:193) and thus encompasses what may be called an approach); namely:

- case study research, which is a narrative of a given happenstance (a case) of a phenomenon bounded in time and place, which is researched in a scientific way (Yin, 2018);

- methodological utopianism (Levitas, 2013), which sees utopia as - rather than a case - a method with analysis of commonplace ideas and practice to discern how they inform hope for radical transformation. Methodological utopianism is akin to "utopian hermeneutics" (Zimmerman, 2017; Jameson, 1979) with elements uncovered in political programs and social and economic policies (Levitas 2013:153). Uncovering is carried out via a "comparative institution approach" which looks at existing "alternative real institutional arrangements" (Demsetz, 1969); and

- action research (cf. Schwandt, 2007:3-4), which means the research is applied to a situation and "seeks to create participative communities of inquiry in which qualities of engagement, curiosity and question posing are brought to bear on significant practical issues" (Reason & Bradbury, 2008:1).

We combined these aspects¹⁶ in our integralism into the paper with the overarching context of methodological utopianism. Our research was for theoretical development and practical application. We wanted to turn our science into a technology.

1.5.3.2 Article contents

We considered if the methodologies mentioned above could be adapted for purposive explorations. We synthesized them in an interpretive process, i.e., we applied them to answer the research question:

How can methodological utopianism be used in praxis?

Thus methodological utopianism, rather than being just a theoretical operation, would become a practical one. That fundamental ‘how can we use question’ was answered by a practical application to community economics. We could apply the question to other areas of interest, e.g., elderly care, school systems, worker mobility, etc. Anyway, we thus investigated two different currency systems, elucidating aspects of social theories of money. The instrumental questions (to inform our answer to the fundamental question) we used were:

How could we imagine (into being) a monetary system that manifests a utopia?
What are the limits of using monetary design in social transformation?

The instrumental questions were addressed to:

1. A well-established system, the adat Banjar of Bali. Banjar has several meanings: a place, e.g., a village; the system operating in that place, called adat Banjar, meaning customary / body of customs; the community of use in that place; and lastly, as Nayahan Banjar, a unit of work-time around 3 hours.
2. A case from the Positive Blockchain movement, the Neocracy. The Neocracy is a comprehensive new economic system. The cryptocurrencies Neco and Karma are elements of the Neocracy.

We looked at both systems, not merely as they were, but how they were believed to be by the Westerners describing them (us, and community currency expert Bernard Lietaer), thus as a simulacrum. However, we wanted to move beyond simple, descriptive, exploratory research toward enabling an action-oriented approach.

We had aimed to explore monetary systems of relevance to community currency praxis. By looking at specific real-life examples, we constructed case studies, then drew conclusions about generalized features of interest. These features can be coded as a pattern or pattern language, see Petz (2017b). Pattern making remains to be done¹⁷. At the metalevel, we wanted to prompt readers to

¹⁶ Cf. Noblit (2019) on meta-ethnography, which is the synthesis of different qualitative research, particularly their results, but by implication their methodological paradigms.

¹⁷ The Credit Commons Society in the UK is working with Mathew Slater, Dil Green and myself on developing a pattern language for money.

extend methodological utopianism to socio-economic research and even beyond to other areas of interest.

Notwithstanding our grand ambition, a viable alternative to conventional economic research methodology is needed. Currently there are deficiencies in conventional practice, which leans on economic modelling based on the idea of independent actors. Those 'rational' actors set in aggregate the framing and consequential mediation of reality by mainstream economic thought. Derived models and approach are invested with agency by economists, altering their thinking and that of their followers. This dystopian propensity is a virus of the mind (Brodie, 2009), which needs decolonization.

Thus, our scientific work while engaging in social criticism of existing schemes, criticized the practices of the community of economists too.

On a practical level, we suggested instead of pursuing an unrealizable utopia (e.g., all economists abandoning conventional thinking), we should foster the political imagination of the useful and applicable. The result was a usable method to operationalize Levitas' Methodological Utopianism. That method was simulacrum case study research. Now there is a viable utopian methodology to look at economies (economic systems, monetary systems, and currency systems), which can be further developed and applied.

1.5.4 Article IV: NomadTown, Manifesting the Global Village

The existential question: Why research? –for a project, corporation, or municipality? prompted some introspection that led to the NomadTown article. We collectively are not researching to deal with the current reality, but our future. We all have a force majeure, anthropogenic climate change, which has hurled us into a new geological epoch, the Anthropocene (Zalasiewicz et al., 2019).

We must place objects (dispositifs) to make an arrangement and engineer flows within it (a milieu) to mitigate the breach of the planetary boundaries which has brought us into this epoch. 'Engineer' is a harsh term (cf. *culturally evolve* or *scaffold*) with connotations of engineering failure in "traditional engineering practices" (Mitsch, 2012:11) and anthropocentric arrogance. Engineer can mean not to take action or to take action. The former can be found in forestry with 'leave-it-alone-' (Himes et al., 2022) or 'do-nothing-management' (Kittredge & Kittredge, 1998) rather than a direct intervention. In this mode, intervention means removing obstacles instead of the emplacement of systems or intangibles / tangibles.

Taking a Foucauldian perspective, we are "responding to an urgent need." (Foucault, 1980:194–5), by how we arrange nigh on everything. Foucault calls the arrangement the "dispositif" (ibid.). That urgent need is the all-too-real dystopia of climate collapse. The perspective of an "'integral" [approach,] insofar as it serves to harmonize nature and culture, society and economy" (Lessem et al., 2016), prompts not only a descriptive analysis, but also to give a prescriptive, action-oriented output in "a field of intervention" (Foucault, 2009 [1978]:20–21). I argue that this action-oriented output is more ecocentric than anthropocentric.

The action research called for behind that exhortation to intervene is related to the ideas of flows and current-sees, explored in Article II. I learnt of current-sees from the Occupy Movement (Costanza-Chock, 2012). Current-sees (of knowledge via use of the media, and the concept itself from Brock's (2011) Occupy Wallstreet video) were used by the Occupy Movement to generate alternatives to rapacious capitalism, even if only theoretically¹⁸. I took the knowledge of flows to manifest NomadTown. When looking at activities for knowledge transfer connected with NomadTown, the flows around those activities are current-sees. The network they were part of was an appropriate way to consider the economy of knowledge (capital). It was analogous to an economy of any other capital or combination of capitals. To share this praxis the question arose: How do you describe a network and the milieu it was part of?

The result was Article IV, which describes not just the connections, nor the nodes, but rather the network in its entirety. Network mapping is attempted in pattern science and was prompted by my communications with Bateson (2017, 2019). I further explicate the flows of part of that network, namely, the current-sees around education and learning about resilience. I contextualize the thick description to clarify as to why we need to know about the flows in relation to the network; we are in an emergency, and the article relates our emergency response to a broader rural resilience (a radical agrarianism) and how we might facilitate networking and knowledge dissemination.

The initial impetus for NomadTown was to create a functioning climate emergency response hub. That hub was aided by a tool, developed as a social technology, called S.T.O.P. The simple mnemonic S.T.O.P. stood for Stop, Think, Observe, and Plan, but iterations of use developed it into a technology. S.T.O.P. technology is a way of looking at our situation and then taking action. S.T.O.P. was used (in the social technology form) only as a prototype, and is not clearly nested within an array of other social technologies. Similarly, the network is conceptualized on a hub basis, aggregated with other hubs, and on a settlement basis, analogous to thematic villages. There are gaps in the description and theory, just as there are gaps in the reality not yet created. Nevertheless, the overall description of how the educational milieu looks, which I wanted to identify, and thence use to support other incipient resilience hubs bioregionally, happened through the research and is presented in the article.

1.6 Theses

After publishing the articles the writing up of the summary encouraged me to think of the context they sit in. I looked at economic theory, the social state history

¹⁸ In Jyväskylä the event Lähiruoka, lähiraha, lähielämä [Local food, local money, local life] was run as part of that movement. The event led to the municipality collaborating with the local Occupy peeps, source: <https://torillatavataan.wordpress.com/category/jyvaskyla/>

of Finland and rural studies material which shaped my analysis. Collectively these interacted with the article findings to prompt two theses.

1.6.1 Monetary Theory Thesis

It is the movement, the dynamism, that makes money into a currency, with currency conceived as a current-see, which is a flow of capital(s) that happens in concert with other current-sees within a system called a *currency system*. Thus, currency is defined as the '*Lebendigkeit*' [vitality]¹⁹ of money in use.

Current-sees and currencies flow over time according to cultural evolutionary trends. They are influenced by the milieu, macroeconomic conditions, and natural cycles, which intersect in a nexus. A subset of these naturally mediated cycles are business cycles of different periodicities, which are affected by stochastic events. To some extent, these flows and cycles can be manipulated. Manipulation is easier if flows are made transparent by using current-sees to educate those individuals and communities in whose use they are embedded.

NomadTown's educational milieu is a medium in which flows that are current-sees, or currencies or capitals that are flowing are visible. We see, for example, knowledge capital, social capital, and not only financial capital, which can be reductively thought of as initiating and ending (a vector) or part of a flowing cycle or circle of knowledge spiraling through time and place and thereby enacting change for resilience in our chronic human survival situation.

1.6.2 Community Thesis

A community of use can technically operate a community economics scheme to instigate change, as VTS does with its Pisteet kotiin scheme. A scheme can be practically supported by fostering varied current-sees within the nexus. Fostering can be done for building resilience in a community within the larger economic cycles of society or even despite them.

It is very much the cultural evolution of the community which determines the future of that community. That cultural evolution is dependent on the community members, who collectively opt to use or not use such a scheme.

Constructing communities of use is a way to transform resiliently, via key individuals, by embedding and connecting them supportively from their communities within larger networks to engender currents of transformative potential. A resilience hub, such as NomadTown, has transformative effects, which are limited without some higher level of networking.

Looking long-term at other actants (e.g., SUCH, SKEY, SAMMAL Villages) trying to influence society for a resilient transformation, it is the use of vectors and flows within these larger networks, by key individuals acting (who should

¹⁹ I translate *Lebendigkeit* as vitality. As a property, it comes from pattern science. See Leitner (2015), where he refers to *Lebendigkeit* as QWAN (Quality Without A Name).

be supported to effectively network) as nodes for educational purposes that can lead to successful societal transformations²⁰.

The communities and individuals, found within liminal spaces, lie outside the mainstream, conventionally framed, economic, and cultural environments. Despite suffering under mainstream (socio-economic) pressures, they contain potential for change. Therein can be created affordances to transition from the habitual situation toward a new world, via initiatives supported with time, public policy, well-structured financing, and whole community participation.

Current-sees play a role in making the flows in a currency system transparent. Transparency allows monitoring, support, and thus facilitates directed cultural evolution, and communitive education. Using the simulacrum case study in action research is one way of implementing potential from the utopian ideas behind principled hopes for change.

Sysmä's experiences suggest, that the structures of governance need to evolve culturally in Finnish society for community currencies to thrive in a rural community of place. In Finland, public policy currently has a limited influence on fostering the municipal application of community economic tools such as current-sees. More broadly, both communities and key individuals, which are manifesting social innovations, lack institutional support from policymakers.

²⁰ This is slightly confusing for the reader. The Great Transformation was a book by Karl Polanyi (2001 [1944]) which talked about how society has changed with monetary relations. The Meaning of the 20th Century: The Great Transition was a book by Kenneth Boulding (1964) which focuses on the effect knowledge has on transforming society from pre-modern to the post-modern. Raskin et al. (2002) took the term for a report: Great Transition: The Promise and Lure of the Times Ahead. It is increasingly used for the wholesale ecological and societal change to adapt to anthropogenic climate change—the meaning used in this dissertation. To add to the confusion the Great Transition was used with more of a focus on information and communication technology transforming society e.g., Robb (1993).

2 MONETARY BACKGROUND

In Chapter 2 I articulate and expand on the key concepts applied here. I outline terminology to contextualize community currencies. Firstly, as a strand, I explain what money is and the problems around defining its essence. Then I expand the analysis to money flows as a current, which makes a currency. However, there is more than one currency in the flow of money in a currency system. Lastly, I explore where currents flow and how they relate to other flows over time and the natural world.

The second strand of elements justifies at what level we are considering the flows. I am interested in the community level. Community, compared with society and even global civilization, needs contextualization. A similar problem arises when talking about macroeconomics, which operates at a larger scale, and yet impinges on the smaller scales commonly considered within community economics.

Only by considering both strands can I then explore (in Chapter 3: Rural Background) the rural aspects. Before doing that, I indicate the context in which monies and near monies operate²¹. How money is political is explored, before moving on to various currency systems: *No Money Economy*, *Near Money*, and *Pluralistic Monetary Economics*.

Most community currency literature I have seen focuses on the currency aspects and not the community aspects. Much of this literature is juxtaposed with macroeconomic positioning. Ideas about how currency interacts or functions within a macroeconomic environment are considered in the framing of discussions. Such focusing warps slightly the perspectives that might appear from those looking from a more community-oriented²² perspective. I explicate my thinking from a counter perspective to the mainstream view below.

²¹ See Kesitalo (2022) for historical developments re the legal theory of money in Finland.

²² I avoid the term collective due to its Marxist and Communist connotations.

2.1 The Problem of Money

What is money? This simple question has no simple answer. The complex philosophical positions taken, leave us with a confusion of questions and not a clarity of answers. See Wray (1998) for ideas on the origins of modern money as: chartalist, based on governments setting tax obligations; metalist, based on precious metals and thus as commodity money; anthropological, based on reciprocity developing from tribal use to barter; marketplace, based on settling debts as an outgrowth from tallying; mercenary, based on payment by the state to mercenaries; mercantilist, based on merchants' large transaction accounting due to trading rather than consumers for retail. See Ingham (2004) for an exploration of origins and diverse positioning re the essential aspects of money.

For practical purposes we could leave the essence of money²³ aside and regard it as a fiction, much as a legal fiction allows us to practice law without worrying about the strict accuracy of the fiction²⁴. Polanyi (2001 [1944]:204) suggests that if we take money as a tool of the market, as a "commodity fiction"²⁵, we could still practice economics²⁶. He highlights in this reductionist concept "that goods used as money are not different from other commodities" (138), which he regards as a Ricardian indoctrination (205), that does not fully account for money. Here, the idea is that money acts as if it were a commodity. Money as a commodity means it is a good that is tradeable on the market. Even arguing for money as a special commodity (not created by the market), there is more than the good itself embedded in money to give it value. Knapp (1924 [1905]:6) writes of "socially recognized exchange-commodity" which can be passed on in circulation and ultimately is "not bound to its material content" (25).

Marx (see Siddiqui, 2019) explores the idea of money's value coming from more than its commodity value, which he considers a labour value, given by society ascribing a value to that labour as surplus-value (Moseley, 2016). I simplify these values under the umbrella of a use value²⁷. To me, writing in the

²³ The Essence of Money is one translated title of Schumpeter's book *Das Wesen des Geldes*; called, by Schumpeter himself, *Treatise on Money*, and elsewhere *Money & Currency*. On The Essence of Money is discussed by Hess (1961 [1845]), where he considers the aspects embedded in money beyond the simple commodity of which a monetary unit is comprised. In our own time, Siddiqui (2019) writes of "the essence of money theory".

²⁴ E.g., The Commorientes Rule: if two people die and it is not clear who died first, it is assumed (as the legal fiction) that the eldest died first (*A Dictionary of Accounting*, 2016).

²⁵ "This money was not a means of exchange, it was a means of payment; it was not a commodity, it was purchasing power; far from having utility itself, it was merely a counter embodying a quantified claim to things that would be purchased" (Polanyi (2001 [1944]:205).

²⁶ Our understanding, or lack of, affects what kind of economics we adopt.

²⁷ Labor value can be found in Aristotle (MacIntyre, 1988:199), Smith (1904 [1789]), Ricardo (2001 [1817]), Marx, and others' writings. Marx's concept of money is based on a mix of the gold standard (the initial money), which when thrown into circulation is called capital and generates more capital- the Labour Theory of Value, which is often tied to a human worker. See Moseley (2016) for a synthesis of Marx's relevant writings. In contrast I say that the use value is the service value that money acting provides and not an external worker provided surplus value from their laboring activities (capital). I do not conflate thus service value

context of a community economics perspective, a use value is a service to a particular community. There are many services that money provides, or strictly is an affordance for. It provides a way to speculate. It provides a medium of exchange, a store of value, and a system of account (the conventional 3 functions of money, as discussed in Article II). Money provides a way for society to value many things, based on the utility it has for some purpose. Cf. Zelizer (2000) for general purpose money being polymorphous, i.e., multipurposed.

Even more than a direct value, instrumental values can arise as money is projected upon with a value given based on perception. For example, encouraging care for the local environment, heritage, and peoples. Thus, behavioral change provides a service. The service is an *intangible* one (an argument is that accounting for behaviors is value accounting, which only becomes possible with money relations)²⁸. This use value challenges “the notion that money is simply a colorless and anonymous tool for utilitarian economic behavior.” Rather, it indicates “that monetary transactions of many different kinds ... are socially and morally codified” (Dodd, 2014:31).

In this expansive definition, I do not go into the details or whether these services could be described as properties or functions of money (see Article II for that). The services mentioned by no means make a comprehensive list, as many more services may be provided and valued within money relations, e.g., security, trust, emotional fulfillment, anonymity, etc., depending on the kind of money employed within a community and what it values. I take a more social relations-oriented view, in contrast to a neutral view of money. The neutral view of money was popularized by the work of Hayek (1931)²⁹; (Patinkin & Steiger, 1989), and it

(value from the tool of money) with commodity value (money as gold or silver, etc.) nor capital in the Marxist sense of worker-power generated in a vital economy. All these uses require money to be in motion, i.e., to be currency (see 2.2. Money in Motion for a discussion of the money-currency distinction).

²⁸ A concrete example is the power projected by images on coins or notes, and what they convey. The Hudson Valley Current designs promote nature protection. Form over function is shown by the commemorative coins issued by various countries; for example, the three 50p coins issued by the Bank of England to promote the European Economic Community, celebrate membership of the EU, and the “Brexit 50p” that marked withdrawal from the EU. Here I conflate the token form with money as a pure non-physical idea. Special purpose (restricted) monies execute these wider purposes irrespective of the form, via the protocols they operate by, e.g., cryptocurrencies that require the stack chain for transactions.

²⁹ Hayek (1931:123) said, “in order that money should remain neutral towards prices, the amount of money or the amount of money payments should remain invariable. But the situation becomes different as soon as we take into account the possibility of changes in methods of payment which make it possible for a given amount of money to effect a larger or smaller number of payments during a period of time than before,” which is as close as he comes to talking about different kinds of money changing the situation globally. He does say “When, in the course of analysis, I speak of changes in the quantity of money, this is always meant to include that total of all kinds of media of exchange (including all so-called “substitutes” for money) used in either a closed economic system (i.e. in a country which has no communication with the outside world) or in the world as a whole. But when in dealing with practical problems we speak of the quantity of money in circulation, we always mean the quantity of any particular kind or kinds of media of exchange used within one or several countries which form a part of a larger economic unit” (109-110). He limits this to a general equilibrium fixed figure where an increase in money in one place requires a balancing reduction in another. Money neutrality is thus a theoretical construct of macroeconomics that

very much separates money from collaborative community economics in its individualization of users.

Such a neutral approach gives rise to the problem of mediation, wherein money is made an abstraction from the real flows of goods and services, thus estranging us from our lived reality. The historical roots of mediation, as a term, can be seen in the Allegory of the Cave, which Plato (1994) related as Socrates describing how what we see is obscured by a veil, and thus our perception of reality is a mistaken one. Plato's Cave is analogous to the way that money can act as an "obscuring layer" (Samuelson, 1997:53) or "veil" (Klausinger, 1990:617)³⁰ between us and what we are using money for i.e., exchange in a purely (anonymous) transaction, rather than a more reciprocal relationship as part of a complex emotional, cultural and social arrangement. The anonymity in exchange aspect of money can be described as the cash nexus, see Ferguson (2001) for an exploration as it applies to societal level functioning; though Carlyle (1840:66), who coined the term, wrote "Cash Payment as the sole nexus between man and man".

Obscuring can bring the property of anonymity, though obscuring is not a necessary function of money, and nor is anonymity an inherent property of money. It could be described as an anti-service that provides a detriment (when undesired) rather than a betterment in terms of utility.

Money, then, when neutral, acts³¹ as an alienation technology (which is certainly an anti-service) that further distances us from the biocultural landscape³². The concept of mediation and alienation can be traced after Socrates-Plato to Hegel (Görg, 2011), Marx (Vogel, 2011), and Zerzan (2012), amongst

does not include different kinds of money with their concomitant varied social relations meaningfully changing the money supply or real-world conditions. However, Hayek indicates neutral money is a theoretical construct, "which will never be given in the real world" (126), which holds "the usual assumption of theory that money exists to facilitate exchange but exercises no determining influence on the course of things, or, in other words, remains neutral" (145).

³⁰ Patinkin and Steiger (1989) claim the term 'veil of money' appears to derive from Schopenhauer, who took the concept of a veil over reality from Vedic philosophy. However, it is inconceivable that Schopenhauer was not aware of Plato's Cave, as he explicitly states (1969 [1819]:xv): "Kant's philosophy is therefore the only one with which a thorough acquaintance is positively assumed in what here is to be discussed. But if in addition to this the reader has dwelt for a while in the divine school of Plato, he will be better prepared to hear me... But if he has shared in the benefits of the *Vedas*, access to which, opened up to us by the *Upanishads*." Thus he blends the Greek and Indian philosophical traditions—though quite where his thoughts originated on the veil remains unclear. The term Schopenhauer uses, "Schleier der Maja" [Veil of Maya] includes the word Maya which has a complex set of meanings: appearance, apparent reality, illusion all within its semantic field. How that term led to Geldschleier [money veil] is unclear. However, Geldschleier was used by Seelhorst (1888:133) and is in Kleinwächter's (1896:22) economics hand and course book.

³¹ As a technology, even an alienation one, money strictly does not act. The actor is humanity, which is using that technology as part of a system. Polanyi (2001 [1944]) calls that system (we live in, and which is alienating us from all the aspects I list) the market economy and sees it as a socio-cultural process. However, he states, "No market economy was possible without the medium of artificial money" (202), which shows the artifact-centric approach of a technology mediating reality. See Petz & Haas (2017a); Haas (2004) for more on (technology as) artifacts and how they alter the cultural environment and are not just products of it.

³² The term biocultural landscape relies on the term biocultural, which has issues and could be rendered as ecocultural (see Franco (2022) for a discussion).

other thinkers. Along this philosophical chain, what is alienated varies, with a focus by some on an estrangement of humanity, from the natural world to the social relationships between people, and even from the essential nature of being human.

In my view, contrasting with a neutral money perspective, power relations, which some see as messy and not part of money (Lucas, 1972; Gauvin & Dominguez, 2021)³³, cannot be separated in practice. Every act of using money (or not) has political and societal implications too. Intention behind the act suggests an institutional economics approach (cf. Ostrom, 2005; Hodgson, 2004). Bindewald (2018) identifies that money is more than we often think of it, with a wide semantic field that takes in many kinds of money-like phenomena, and "it can never be 'neutral'." (Bindewald et al., 2015:020). Both time-based currencies,

³³ Marc Gauvin (Gauvin & Dominguez, 2021) says the lack of a clear, agreed definition over the essence of money is where many problems spring from. Gauvin wants a standard definition that is directly comparable with the metric system of weights and measures (perhaps even as part of an SI system tied to a constant). Gauvin's desire harks back to having a basis on a concrete item, e.g., the metre (now defined by light speed in a vacuum) was based on a standard piece of metal at a given temperature, gravity, and pressure (see BIPM (2022) for details of "material artefacts" and standardization history).

What reference point could we take for money? And is it a static one? The theory of commodity money being tied to gold or bi-metallically to gold and silver was one possibility. Yet these only allow money to be used to a limited extent. Even fractional reserve banking is basing this on some level of fixity. This is a contrasting view to one based on the size of the economy defining the amount of money.

Gauvin goes further than accepting a static figure though. He wrote me (12.6.2023) "OK, the presumption that the current and indeed millenary money system is neutral, is false. Any system that is either active and/or unstable carries systemic biases/imperatives. Under its current commonly assumed misrepresentation the money system is necessarily unstable. Therefore it cannot ever be "neutral" even though the source of such biases is not introduced by the decisions of the agents (users) of the system.

Regarding your other two points you paraphrase:

1) Money is not currently formally defined. Instead the world is operating with an informal common notion that constitutes a logical misrepresentation. No matter how that misrepresentation came about or the fact that money has not been formally defined, the validity status of any definition is not a function of "power relations" but of the logic used.

2) We demand that a valid definition of money be provided. And in so far as money is expected to act as a "unit" of measure, it is only reasonable that said definition and its prescribed use be consistent with the math of measure. All this is laid out in our resolutions:

<https://www.moneytransparency.com/msta-resolutions> The key point we are making is that there exists a system unstable dynamic in the predominate paradigm. That dynamic and its necessary effects has not been properly understood by most everyone expert or laypeople. But can be fully understood in the light of dynamical systems theory, that standard economic theory ignores. Instability of a system component has the property of unbounded behaviour, requiring that it be contained by external forces lest it destabilises the other components of the system. Overriding the imperative for system stability in physical systems, is done for short term performance but at a cost that is usually absorbed by nature. A system that requires "measure" at its core has no performance trade-off. This is the case with money as a unit record of value." I discuss the change in a system in section 3.4.1 Economic circularity; and the dynamic of interacting aspects which engender a new situation and a new critical figure based on Myrdal's (1957) work. This swelling or contracting seems to offer a way to think of a dynamic critical figure and thus definition of money based on the system state, as Gauvin highlights is an issue. His view of agent action moving away from neutrality is not precluded by his writing, though his use of dynamism to me meets the definition of neutral, i.e., not shaped by human intervention, but rather a dynamic property of the money system.

like LETS³⁴ (Eskelinen, 2018; Lopaciuk-Gonczaryk, 2019), or barter systems using commodity money can be considered money in such a widening gyre.

These varied positions reveal an ontological problem. What kinds of money are there? Article II (When is money not a currency?) deals with that. Yet if asked about the epistemological aspects, we can see that the answers influence our definitions too. If we accept the idea of a fixed amount of money tied to some standard, which standard do we apply? How do we account for changes in the amount of land or population? Surely, a change in the referenced standard would lead to a change in the amount of money – and if not its value? Schumpeter poses a solution. His standard is based on a critical figure. The critical figure is arrived at by sleight of hand.

Schumpeter takes the calculations to achieve the critical figure to include population, land (which he regards as nominally static), and gold (which he regards as fixed in amount). A static basis causes some problems, as technology and colonization were mentioned as possibly altering the critical figure and, by implication, money. Schumpeter indicated static views were not acceptable with his business cycle model (3-5 or more intersecting cycles), yet the classical static basis haunts much of his thinking. Schumpeter proposed his model as provisional, to be a critical inspiration (of existing approaches) for successors. He vacillated between a general equilibrium being an acceptable assumption for modeling purposes and it being too incorrect in reality for such use.

Here is where I differ from Schumpeter more severely: Schumpeter wrote in the era of the Gold Standard. I am writing in the time after Bretton Woods system was abandoned in 1976. I am writing in a time when we have created *de novo* game- and crypto-currencies. Some have gained value completely independently of fiat currencies (and certainly any kind of commodity)³⁵. We are now seeing that land can expand into the metaverse with new currencies based on virtual land holding, such as Atlas Bucks (Atlas, Inc., 2023) and Linden dollars (Linden, 2021). The game currencies elsewhere are recording something. What are they recording? I think that they are recording time and an agreement that the time is valued based on emotional content.

To return to the real world, the same can be applied in small communities when the critical figure (not from an invisible hand of the market economy) comes not from the amount of gold or agreed fiat in the system, but rather from an agreed value (so a local distributed command economy) that participants (users) agree on. This power taking is called cutting the monetary tie by Douthwaite (1996d). The figure can be measured and made transparent with current-sees which can be recorded in an open ledger. The trading of this created

³⁴ Originally Local Exchange Trading System, the variations Local Exchange Trading Scheme, and Local Employment and Trading System exist.

³⁵ Cryptocurrencies are often proxies for the US dollar or other fiat. However, not in all cases. Game currencies do exist that have value, even though as restricted monies limits on what you can buy with them apply. When value is based on hype, it is hard to describe that as a commodity or a service (see Olson (2022) for examples).

unit of agreement (a token, which shows a record of the agreement)³⁶ can fulfill the properties of money, as in Article II, in that it can be used for the 3 main traditional properties to measure, to store, and to act as a medium of exchange. Crucially, tokens can be created (say by doing an amount of work) and destroyed from the system (by mutual agreement in terms of taxation).

Thus, Schumpeter's concept of the money tie is reappraised from a strong (or hard) tie to a mythical critical figure shaped by an equilibrium fundamentally based on gold, land, and human population (which Schumpeter converts into an account of goods and services, which is what he sees money as). Instead, it is more of a weak (or soft) money tie, where it is more amenable to purposive alteration by those who create (and I mean create by bring into use, so as members of a community of use) the tool of a special purpose money. I want to think not in macroeconomic terms (a national economy or even the global one), but in terms of community currencies and community economics when I talk about such a weak money tie³⁷. The example of Good Dollar³⁸, which seeks to give "Free crypto, every day, for all who want it" does seem to have a functional economy without serious limits on amounts.

Here is where it gets complicated. How is the problem of mediation solved with such weakly tied monies? If reality does not connect via the market equilibrium, how does it connect to our money? How are the issues in set theory resolved in our contemplation of money? Cf. Holmes (2021) for an exploration of set theories; Griffith & Paelinck (2018) for linear expenditure systems, which contain an application of set theory. Such an application can be used to assess utility for consumers, communities, other stakeholders, and the planet around distinct kinds of monies over time. Before considering those questions, I will now

³⁶ Several scholars are in agreement with me: Article II "Money can then be seen as an implicit shared understanding over currency, or "an agreement within a community to use something as a medium of exchange" Lietaer (2001:p93) and "Exchange is when an agreement is made for one thing in return for another" Eriksen (2001)." and "the definition ... for currencies was talking about current-sees, first of all the ability to see currents, to see flows, the ability to see those different layers it's referring to that as a language of value ... what I am suggesting is that current-sees are social DNA. They are the way that we embody agreements for ... what we value and how we are gonna interact around that value" Brock (2011:m19:19).

³⁷ To be fair to Schumpeter (2014:239), he at times suggests that the money tie is not completely rigid: "increased production leads to heightened demand for credit, and if this borrowing requirement is satisfied by newly created *ad hoc* credit, then pressure from the money fetter is eased... and economic life... can put up resistance to the bridle of money". However, he still regards the critical figure (of the economic sphere) as pretty fixed over time and does not accept ways it might expand. Karl Polanyi (2001 [1944]), in his Great Transformation, has the idea that the social sphere will be swallowed up, and that "commodity fictions" will, through the process of commodification, make commodities where they did not exist before. This would allow the critical figure to expand.

Both Schumpeter and Polanyi share perspectives on the transformation of society. Schumpeter as a rationalization, which will cause a cultural change in the social sphere, and Polanyi its swallowing via transition. Schumpeter holds to an evolutionary internal capitalist dynamic led by innovators in the "gale of creative destruction" (2010 [1943]:82), which can increase productivity. For Schumpeter, the cake can be better shared; for Polanyi, it can grow with new ingredients. See Hager et al. (2022) for an expansion of this argument.

However, it is Myrdal (1957) who prompts a mechanism of expansion of the critical figure via an emergent property due to varied factors interacting, where a virtuous cycle from the different spheres' interactions can create new affordances that swell the cake.

³⁸ <https://www.gooddollar.org/>

discuss how currencies and current-sees are distinct from money. Then I will move on to the cycles in which currents flow as part of the nexus, which concerns the monetary thesis of this dissertation.

2.2 Mutual Money in Motion

Money is often used interchangeably with *currency*³⁹ as a term. Variation hinges on the wide range of uses people apply to the term money. The semantic field is wide for the term, and is where definitions get muddled and lost. The nature of money has changed over time, which adds to the confusion. As mentioned above, there is semantic shift, and actual change as to what the term money encompasses. For example, money that was a large piece of gold that could only be used for distant, large-volume trade is different from electronic money that can be split to pay microcharges⁴⁰.

I seek a comparative analogy, that highlights where many of the problems lie in answering the simple question: How do you differentiate money from currency? A comparative process is used in much of philosophy, and it is useful to take this more metaphysical approach. So, the analogy! We can consider money analogous to water⁴¹. As currents are flows of water, so the flow of money is currency. Currency is money in motion. In Article II, I defined currency as follows: "The movement and flows: via computer transactions, transfer of physical objects, or by use of documents" [of money]. Money, thus, could be physical objects (tokens, bank notes, commodity money, assets), digital records, or documents. For the properties and functions that define which of those objects would be money, and thus be able to flow as currency, see Article II.

Returning to our analogy of water, if we consider the sea and tides, we get an idea about where the conflation may lie. We can think of the sea as static and the tides as moving. Within the tidal movement, we see the effects of the wind, which drives the waves and, to some extent, the tides. More movement in our body of water is caused by the dynamism of the ocean currents.

To extend the metaphor further, the sea itself (as part of the hydrosphere) is connected to the atmospheric system (the atmosphere). We could go further to look at other minor systems such as the effects of minor gravitational influences from the biota our planet contains (over deep time influences are more noticeable

³⁹ Thomas Greco Jr. (2023) claims they are and stated in an email (27.11.2022), "whether or not one considers money and currency to be different "things," they perform the same function of facilitating the exchange of value in the market". Both he (2009) and Lietaer (Lietaer & Dunne, 2013) appear to use the terms money and currency interchangeably.

⁴⁰ For example, a Tobin Tax (McCulloch & Pacillo, 2011) could be implemented for financial transactions, paid in such a money, and then settled later upon reaching a significant amount. Atlas Bucks does this via per-second virtual rent, where "Players can also convert \$1 of accrued virtual rent into 25 Atlas Bucks by clicking on the virtual rent total and selecting the conversion option." (Atlas, Inc., 2023).

⁴¹ Kingma et al. 2023 do this too with "The Waterworks of Money" posters and animations, where "If you think of money as water, then our financial system is like an irrigation system, watering the economy" is graphically depicted.

in the geological record, though kelp and mangrove forests give examples we can see in our lifetimes), and irregularities in the Earth's orbit (Milankovitch cycles, precession, nutation, the Chandler Wobble, etc.).

I claim the whole hydrological system is analogous to the economy. And the corollary that hydrological system is an economy of water has within it lessons for us on amounts (critical figures), pooling, and flows. What do we mean by economy⁴²? Earlier, in the theoretical framework, I dealt with economics and different schools and perceptions of how to approach the economy. But I did not explicate what the economy is. If we go back to the etymological roots of economy, we find it arose in Greek from *oikos* [household]⁴³. So, household management is a reasonable anthropocentric heuristic to allow us to conceptualize the economy in our human civilized way of living. But wait a minute, the word *oikos* also gives us ecosystem. So, the economy is part of the ecosystem.

If I carry out a post-modern dissection of economy as ecosystem, I find it is comprised of interlocking elements and forces. It is like explaining the term milieu in the level of complexity. See Article IV for an explanation of the term milieu. We find in the economy: money, currencies, business cycles, stochastic effects, the money tie, and several other dynamic phenomena variedly called cycles or trends. These are connected to the natural world with comparable phenomena: the natural endowment, population dynamics (size, cohort effects, demographic transitions), disasters, seasonal change, and periodic El Niño and La Niña cyclicity (oscillation). Like the sea, the natural world suffers from much longer effects with minor influences, e.g., evolution, climax communities, and succession.

A theory of money must embed money in such a complex of relations. It must account for emergent properties, energy levels, and chaos. Beyond the natural sphere, it must encompass the effects that may arise from cultural evolution and society. Inclusive arch-theories (Barker et al., 2023:114-138) take into account chaos theory, complexity theory, and how well we can model what we see to match the theories. Do we want theory-led science or science-led theory?⁴⁴ is an epistemological question, that needs to be considered as we think to make economic interventions. Applied economics requires an awareness of

⁴² It is obvious the term "economy" is well defined by many people. Here I show that the ecological, Darwinian (Borders, 2011), rather than the Cartesian mechanistic metaphor (Anderson et al., 1988) is the one I am following. It is so that every man and his dog have a criticism of economics and often wants to make their own definition, I am not seeking to do that, though I recognize that economics varies at scale, over time and perception by thinker, as Coyle (2021) explored.

⁴³ The Greek origin of economy was *oikonomia* which is composed of "*oikos*" [house] and "*nomos*" [management]. The term "*Ökonomie*" was used by Goethe (1798) for what we now call ecology, that term "*Oecologie*" invented by Haeckel (1866:8), and ecosystem was then derived from ecology by Clapham, then Tansy used it (Willis, 1997). So house, meaning household, is included in all these terms; the majority include the biotic and abiotic factors.

⁴⁴ My point is that grandiose, universal theories should have empirical foundations, a requirement recognized in recent economists' praxes with a move to use big data (Coyle, 2021), and longer ago with the Methodenstreit (Louzek, 2011) and not always followed today with assumptions over information (Stiglitz, 1985).

how the system functions to allow us to work synergistically rather than combatively against the system.

I thus conceive of the flows of these monetary currents as part of a system, in the same way as there is an atmosphere and hydrosphere, there is an econosphere. This is the first strand.

2.3 Community & the Econosphere

The second strand explains the level at which I am looking at those aspects mentioned in the first strand. Community is not well defined in the sense of a monetary community (cf. Orléan (2014, 2022); Desan (2017); Helleiner (2014), with attempts to incorporate social, individualistic, constitutional, and collective aspects at a community level in money relations. These are only beginnings, as they do not deal with participative democracy, nor application at small-scale community levels (let alone how I conceive of community – explained below) adequately). Community currencies are commonly viewed as complementary to whichever fiat currency is in use by a given community⁴⁵.

This terminological distinction is sometimes rendered moot by terming complementary currencies and community currencies under the umbrella term CC. A further terminological issue is raised over scale; local, regional, national, or global are most the commonly used (see Article I for a discussion over local and regional applicability). CCs as a form of money can be described, in accountancy terminology, as a financial asset, i.e., cash or cash equivalent (Article II: 1.1 Background to Money v Currency v Exchange:31-34 for an exploration). The frame of reference affects the perspective described; to an issuer of a CC⁴⁶ the CC may appear as a liability rather than an asset (see Atrill & McLaney, 2011:44–48 on assets and liabilities). A particular asset, including a CC, can be near-money. Near money is an asset or an instrument that can be converted to money, yet is not money. However, a CC may operate as money, and thus it

⁴⁵ There is a fallacy of omission here. The economy is more than just money and financial flows (e.g., “the non-monetary economy” Elkins, 1992:68-69), and thus complementary to fiat currency would ignore all the other flows and aspects of an economy. For example, cash transfers for agricultural investment are not sufficient to effect change in an agrarian culture without agricultural extension, which transfers knowledge, technology, and perhaps structural changes. Structural changes are not dependent on cash alone, and a CC can incentivize a structural change, in which case it would not be complementary to the existing knowledge flows. See Himanshu (2019); Himanshu & Stern (2016) for more on these broader aspects; and Article IV for agricultural extension, folk high schools, and how knowledge capital is another flow or currency that can be considered as complementary to a CC in a multi-capitals approach to the economy.

⁴⁶ If the issuer is a CIC, as with the Bristol Pound CIC (Petz & Finch, 2023), which made pounds issued for use as money then the CC was a liability for them, yet for the ordinary people and businesses using the pounds as cash-in-hand they were current assets. Things become complicated when considering a LETS scheme, where issuers are also users in a mutual system. Here we could list, say hours as both assets and liabilities, but listing would not account for the conception that having liabilities is adding liquidity to the LETS system and that use value is poorly considered in accounting terms.

would be money (see Article II for an exploration of the paradox of being money and not money).

Our difficulty in defining usage (by a community of use) is analogous to defining language and its usage. How much usage? How often? To what degree of depth? Who defines it? The users or those observing economic activity? Beyond these profane questions, we would be neglecting the effects of the usage and who is affected. The community of affected is a way we could conceptualize a wider stakeholder aspect. See Mitchell et al. (1997) for a review of different theorists' conceptualizations of who is affected and thus a stakeholder.

Going back to community, a community of use is not the same as a community of place, but both are commonly conflated and muddled in analysis and praxis⁴⁷. Such entanglements, even in scientific descriptions, make describing a community in terms of bioregionalism even more difficult. See Article IV for bioregionalism and how it can be soft or hard. I want to describe it with a bioregional contextualization, so our culture and economy are explicitly embedded in the ecosystem where we live and not separated from it.

When describing a bioregional community, I am not considering the community only as a social human community (cf. Latour (1996) for the concept of actor or actant whereby "An "actor" in ANT [Actor-Network Theory] is a semiotic definition - an actant -, that is something that acts or to which activity is granted by others. It implies no special motivation of human individual actors, nor of humans in general. An actant can literally be anything provided it is granted to be the source of an action."). Thus, I am not alone in bringing in an ecological dimension to our considerations. For me, the usual meaning of community is conceptually wider than an anthropocentric one. Most cultures share my *Weltanschauung* [worldview], as explained below. Most known cultures are not anthropocentric (Attfield, 2003; Jensen, 2016); they encompass not only a human community, but also hold a deeper ecological perspective that includes animals, plants, and abiotic nature in the web of life in their ideas of community.

A deep ecological conception is found in Western scholarship too (Capra, 1997; Næss, 1995). If we were to ask ecologists about what a community is, geologists about a past community (assemblage), or foresters about a forest community, we could find the deeper conception with their semantic understanding of community. It is reductionist mainstream economics that may externalize the non-human elements (as Article II covers). The origins of this more limited conception can be traced back to Aristotle and his political community, which elevated man (due to his ability to reason⁴⁸) above others

⁴⁷ See Schwandt (2007:240-244), for a discussion around praxis, which is a state of being and acting as connected to phronesis [practical wisdom], rather than just the technical operation or practice.

⁴⁸ Ancient Greek philosophy can be traced before and after Aristotle, with slightly varied conceptions about the relations between animals, nature, and humans (Taylor, 2009). Chronologically, the Pythagoreans, Empedocles, Socrates, Plato, and Theophrastus consider such relations. Further medieval development of the Great Chain of Being, while linking all the elements, helped further elevate man from nature; the work of Thomas Aquinas is

(Onwuatuegwu, 2020) in his agrarian relationships within “a polis ... [which is in many cases] a connected rural community” (Grumett, 2019).

Many sociology scholars adopted an Aristotelian narrower view of community, the “Little Community” (Redfield, 1960). Redfield claims sociologists are even more reductionist than anthropologists when thinking of community (ibid.). More recently, the narrow view is questioned by an ecosocial turn to “a new normal” (Powers et al., 2021). Regrettably, the turn does not go as far as I would like toward the web of life conception.

Instead, we must consider indigenous science (Pierotti, 2010, 2015; Pio et al., 2014; Mertens et al., 2016). Such science follows a kinship approach (Topa & Narvaez, 2022). The kinship approach regards plants and animals as kin. A person can hold a greater affinity with the plant and animal kin that are locally juxtaposed than with more geographically distant kin who are of the same species, i.e., other people. Kin often extends to the abiotic too. Variations, between different traditions of indigenous science, mean oversimplification is a danger. However there is a relational, reciprocal consideration, whereas the bounded Eurocentric term ‘community’ has a poor descriptive fit. In the indigenous science worldview, there is no real equivalent to such a limiting community conception; connections rather than limitations need to be perceivable. Contemporary terms to express the connected way of seeing that encompasses the living with place of the broader community are, “watershed conscience” or “bioregion” (Parsons, 1985).

Such kinship, when juxtaposed with the concepts of *Gemeinde* [community – of place] and *Gesellschaft* [society – of estranged interpersonal relationships], further questions the idea of society⁴⁹. Society is supposedly an aggregation of communities. Yet, if we do not have communities, as we have a network of interrelating entities that are occluding, then the concept of society (founded on the alienated community concept) is even more nebulous and harder to think of⁵⁰. As macroeconomics operates at a societal level (and under the assumption that

particularly relevant here (Lovejoy, 2011 [1933]). These helped to shape the concept of a human community, which developed in the medieval period (OED, 2021) and was then adopted by Western approaches in the Enlightenment as the idea of community. For a more recent overview of community, cf. Rapport, 2014; Crossman, 2023.

⁴⁹ See Giddens (1990) for a discussion of how modernity shapes the concept of sociology as science, which he identifies is so entwined with the concept of society as a modern nation-state that it is hard to think of a society, which is not a nation-state bound up with the dictates of modernity. Giddens states (14), “Agrarian civilisations had “frontiers,” in the sense attributed to that term by geographers, while smaller agricultural communities and hunting and gathering societies normally shaded off into other groups around them and were not territorial in the same sense as state-based societies,” and it is this more community, or civilization-based sociology which usefully forms part of the roots of a more indigenous sociology. In sociology, we find the ideas of *Gemeinschaft* [a community sharing something in common, in common unity – a commons] and *Gesellschaft* [society] distinct from *Gemeinde* [community of place] coming from Tönnies (2019 [1880–1935]) as idealized types (Christenson, 1984). Note: German uses *Gemeinschaft* [commonwealth] and *Gemeingut* [a common good].

⁵⁰ Of course, we can think of community and society. Perhaps they are useful heuristics (Crossman, 2023). Usage is akin to the application of a folk taxonomy. A useful example of folk taxonomy is the species as a concept that increasingly biologists do not strictly hold to, yet still find useful. It is the atomization behind these concepts that is problematic.

there is a society, of the kind, as I just described), when we are operating at the community-based level, our ways of describing and coping with this dissonance become quite torturous.

Thus, to cope with the difficulties, I apply the term 'community of use.' It can be seen who is using a money, rather than just a community of place, or a community of interest. We do not need to identify the stakeholders and how they are affected if only looking at the use to see how the use manifests. Further analysis looks beyond the data showing use, to observe wider implications and impacts on stakeholders (those with an interest in the use, which can be actants, agents, even passive recipients like rivers, legal persons, or children).

The effects can be seen as flows (changes over time), which are made clearer via current-sees. The flows we see with current-sees can include the flows affecting the natural world, and the effects on humans in that community. If we are to consider the flow effects in the milieu (Article IV) then we must consider how the flows are collectively moving and interacting to affect the balance of existence. That is seen with NomadTown, where the flows of knowledge from NomadTown interact more widely. We can see the flows in the mainstream media where Ossi Kakko and Christof Middeke affect their audiences. Even Lasse Nordlund, who is connected into the University of Helsinki milieu via the SUCH network and HELSUS institute, causes a flow of knowledge and change.

At present, the current-sees to make these flows visible are absent. Media monitoring is how we can observe the flow of information, but impact via change is harder to attribute to that flow. Cf. Griffin et al. (2015), for Communication Theory—a constellation of ideas and “hunches” (2) around how we might purposively investigate information flows. We lack the implementation of a form of money as a system of account to do this⁵¹. Yet the diverse flows themselves are present, in the same way that financial flows are present. Knowledge flows are not just present in the print media, but within communities of practice, word of mouth, and social media.

If we take the case of the *sysmä*, there was an absence of flows. Such stagnation led to rural decline in the broadest sense. Current-sees would allow us to see flows, or rather, in *Sysmä*'s case, absence of flows. We could see any misalignment or imbalance. In *Sysmä*, local wealth, the local flows of reciprocity and interaction were lost. If we apply political theory here, we might contrast individual and communitarian perspectives (Kropotkin, 1902). A communitarian perspective is more apposite than an individualized one, as we want to see the current-sees interacting in the whole environment in a mutualistic way. We can then link up with society to see misalignment in other communities of place and even to the global civilization to see the mechanics within a currency system.

We are thus connecting the local economy with the larger economy. We can start to evaluate if there is a local circular economy or not. See Korhonen et al.,

⁵¹ We could evaluate the effects by looking at word use (for example, by analysis of #tags), related practices, and artifacts in society to see if there is a cultural change over time. See Joss et al. (2019) for a possible webometric methodology to so evaluate. These things do not have to be monetized, but they could be.

2018; Kirzherr et al. (2017) for the diversity of circular economy conceptions⁵². Depending on our conception of localization, we can observe the wheels within wheels to evaluate how we can influence the mechanics at different levels. Localized changes relate to cycles and trends over greater scales. The macroeconomic interactions with the localized can be looked at within the context of Schumpeter's business cycles.

2.4 Weaving Community, Money Flows & Business Cycles

We can now weave the two strands of community and money flowing as currency together. We can consider how community currencies flow as part of the wider econosphere. The econosphere can be linked into the wider cycles of nature while still in concert with the business cycles.

Conceptually the business cycles need more expansion to relate them to the natural cycles. The business cycles I am thinking of were particularly considered in the work of Schumpeter. Schumpeter's Simple Model ⁵³ (2014:96) was influenced by the work of Léon Walrus who gave "the archetype and the greatest simplification of that system of economic variables" (ibid.:footnote 4). These were the "fundamental relations that make a meaningful whole out of the various parts of the economic world ... a system of related, interdependent elements. We therefore speak of a general economic constellation, of a general interdependence of economic variables" (97) and led to "the *state of equilibrium*" which was "the necessary and sufficient condition for the *maximum satisfaction*" (97).

Schumpeter's views here were a simplification (which he builds upon), based on a welfare economics view of utility to satisfy limited human demands (called wants⁵⁴ in the economic literature). They related to the idea of a static system and not a system that is changing over time. They were like an engine primed with fuel, and ready to run, but not yet ignited. All the dynamism is removed from such a model. Entropy and inputs are not considered.

When we come to the dynamism, we look to see the cycles that operate in that model, with increasing complexity to approximate reality. Schumpeter

⁵² When Kirzherr et al. (2017) looked at the circular economy, they had a tiered ontology of micro, meso, and macro scales. None of these work with the idea of geographically local, regional, or even bioregional levels, as they are thinking of "the micro level (products, companies, consumers), meso level (eco-industrial parks), and macro level (city, region, nation, and beyond), with the aim to accomplish sustainable development." Even the term bioregional contains regional, which is discordant if considering the local economy and not the regional one as rural development does. These different conceptions of the economy as ecologically based and industrially based are incommensurable (though Natural Capitalism (Hawken et al., 2010) and the Blue Economy (Pauli, 2017) attempt to make them commensurable). The lack of consensus between different fields makes it complicated and confusing when writing about the economy from a non-macroeconomic perspective. Ironically, Kirzherr et al. (2017) refer to the issue of terminological confusion in their own paper!

⁵³ Cf. Marx's (1906) Simple Reproduction, which is a non-growth steady-state economy.

⁵⁴ "economics calls all the components of welfare "wants" ... Green economics also draws a distinction between wants and needs - an unsatisfied need, material or nonmaterial, leads to damage to the individual" (Elkins, 1992:30-31).

encapsulated these as “the capitalist economic process”⁵⁵ (114), described as “a fiction of theory ... [in which we] assume that the elements of the social product, continuously produced, flow together somewhere and from there are sent to those “containers” that we call places of consumption or households. The social product is not simply an absolute quantity like a stock, but a flow of consumer goods or, what amounts to the same thing, a stock that gains its meaning only through its relation to time. We can always choose the “period under review” freely, but three types of such periods lend themselves to this role.” (115).

Here Schumpeter is slightly opaque to the non-economist. By “consumer goods,” he includes services to people, so ecosystem services are probably not considered. By “households,” he includes all consumption that is not making another product, which relies on the concept of linear economic thinking and a final consumer. The three periods he means are ways we can sample a flow and, using the samples, draw a conclusion about how the flow changes over time. His suggested periods are: “production period,” from a raw material to a finished product / process for that raw material; “economic period”, that seems to be the telos of some plan, that an “economic agent” has in mind (I think like a 10-year plan that a command economy may implement); and lastly, “accounting period” which is arbitrarily decided. All these periods (115) give convenient sampling intervals, which could change if circumstances change. Schumpeter presents an annual period as wise (as the accounting period prompts). An annual accounting period reveals a historical bias toward seasonal change, not a tropical existence where there is no such periodic change in the natural world, and thus the harvesting of crops as in productivist temperate societies (Hsiang & Meng, 2015). However, it works to gain a time series of data for analysis.

The time series is wanted for looking at “the concept of the circular flow of economic life under stationary conditions” (Schumpeter, 2014:115) is:

the fundamental economic process of production and consumption, or in monetary terms, production expenses, income formation, consumption spending, which, without beginning or end, is always flowing out and back into itself. ... to make the phenomena of this logically closed process clear ... we, ... disengage disturbances, statistically if we can, but above all intellectually. But it is subject not only to disturbances from outside intervention but also from internal changes. And these we also initially expediently ignore when it is the essential traits of its course with which we are concerned. With the proviso, therefore, that we may reintroduce missing elements into this picture, we make the assumptions of constant population size, natural set of circumstances, social structure, taste, technical insight or production method, so that we gain a picture of an essentially stationary economic process, which we describe as a circular flow because each of its phases leads back again to itself, the image of a purely self-replicating economic process (Marx) [sic] (ibid.:116).

Schumpeter’s description is only a model, and Schumpeter recognizes that “it is, while being the unrealistic escalation of a thought experiment, a self-sufficient

⁵⁵ It is unclear what Schumpeter’s politics actually were; he writes of command economies under socialist societies run by comrades, in Randian libertarian terms about entrepreneurial pressure driving economic activity, and in earlier writings in favor of the Führerprinzip. Given this variety, it is likely his use of “capitalist” is merely a label rather than an ideological commitment. See Medearis (1997) for an exploration of his authoritarian politics as “democratic” socialism, and how that is a “method”.

theory of a part of what actually happens. It is also an instrument of essential significance for monetary theory.” (117). For Schumpeter, this simple model can be questioned, and he answers many of the challenges in those questions as if they are trivial to the overall model’s working. He allows that “seasonal fluctuations” (117) can be adapted in, also that “saving” (124), “fluctuations in stockpiling” (118), and individual human economic behavior are largely accounted for. He owns that population change (123), (he only considers gradual population growth⁵⁶) poses a problem as it prompts new circles and flows. He further asks how the process emerged in the first place (118) – without a satisfactory answer.

Having broadly accepted this model, Schumpeter goes on to talk about the processes in the credit and monetary sphere:

Since monetary quantities and monetary processes in the economy receive their meaning from goods quantities and processes in the world of goods, to which they correspond, for which reason the understanding of monetary operations requires an understanding of what happens in the world of goods and cannot be taught independently thereof, we have, with the considerations just made and the conceptual constructions that have arisen thereby, already gained an initial approach to an analysis of the credit and monetary sphere. (125).

These processes are further described as cycles and waves. Schumpeter was not the first to see cycles in the economic world. The specific cycles he suspected were well evidenced are as follows:

There was a short business cycle, “the 7- to 11-year wave ... the Juglar wave” (127) of “alternating booms and depressions ... to do with wave motion, ... statistically determined by Clément Juglar⁵⁷” (126).

“the “long wave” of about 50 years, which Spiethoff first pointed out and has been most thoroughly analyzed thus far by Kondratieff.

Third, at least one wave the span of which lies between these two spans, that in America lasts 15-22 years. This was first investigated by Kuznets” (127).

“And Fourth, a wave of 3-4 years that Kitchin discovered and the existence of which, outside the results of many other investigations, appears to speak to the experience of business life” (127).

All these waves⁵⁸ or cycles (which make 5 with the seasonal cycle included too), Schumpeter believes, are inherent to the econosphere. They occur, beyond the static model, in reality. In addition, there are other effects (which Schumpeter calls disturbances) from “outside the economy.” Some are random and could be

⁵⁶ Ignoring population is an extraordinary omission. Failure to look at population effects in more detail, the effects they had on the model, and the consequences of the model may explain some limitations. Population flux may be indicative of why new flows can arise. If there are emergent properties that depend on reciprocal capital, if flux exacerbates or mediates flows are not so considered. I am writing at a different time, when it can be claimed we are more aware of the links between the human population (which is more than double the size of Schumpeter’s time) and other factors that may influence the economic flows, which are dependent on the limits of the planet they operate on. See Attenborough (2020) for an overview.

⁵⁷ Clément Juglar, *Les Crises commerciales et leur retour périodique en France, en Angleterre et aux États unis* [Commercial Crises and Their Periodic Return in France, in England and in the United States], first published in 1860 (Schumpeter, 2014:footnote 20).

⁵⁸ There is less evidence for Kitchin’s or other waves that may exist at different granularities.

described as noise, for example, a “sufficiently significant earthquake” (129). Some are not so random and are monetary:

The money-theoretical and monetary-political relevance of all of these disturbances is clear. Of special importance to us are those that not only compel reactions in the money and credit sphere, but – directly at least – develop within that sphere. Discoveries of new gold stocks belong to our first group [outside the economy], changes in mint legislation such as the transition from one coinage metal to another, bank legislation such as a change in the legal reserve requirement, inflationary or deflationary policy and the like, pertain to our second. The latter must have motives, and these need not be rooted in monetary policy. Devaluation of the coinage metal would be an example of a purely monetary-political motivation of a coinage reform, but the cases are much more frequent in which the nexus of complete explanation as a rule cannot be derived from currency disturbance. Here it is only to be stressed that there are also purely monetary causes of disturbance. Even if the causal relation spills out beyond the monetary sphere, for the purposes of theory it is often sufficient to halt at its borders (129).

These “disturbances,” when deliberate, can be termed “interventions,” which are “changes in public commercial, social, or fiscal policy” (129). And “every economic course proceeds under the influence of a particular design of legislation and administrative practice” (129). Such interventions have relevance for us working in community economics. We can potentially alter the static model (as expressed in reality) by mediating the cycles that are running as a part of the economic system. We can use CCs to make our own waves and cycles and to monitor them with current-sees as part of the policy mix. The possibility of intervening in the economy seems to be the implication of Schumpeter’s writing. Meaningful intervention is too hopeful a claim, as we have not drawn the boundaries of what policy can do against the hard rock of the economy. Returning to Schumpeter’s cycles, what is the cause of them? Or if not the direct cause, what limits them? (And thus, us from just inventing whatever figure we like at our caprice⁵⁹).

At first, he suggested that they are based on goods and services. These relate, via the money tie, to what is possible. Schumpeter suggests small, temporary changes are possible, but over the long term, they will manifest to zero as the money tie will be a limitation. This hard limitation is based on what he terms “the critical figure.” The critical figure was related to the idea of a level of capacity. The idea of capacity can be tied neatly to natural cycles. We all need to eat, so there is an amount of food that we demand to live (Daniel Quinn (1992) had the idea we can eat less over time at the population level, thus reducing the amount of food demanded). Similarly, if we give people more resources, they spend more. For example, the rich buy many more material goods they do not need; and the

⁵⁹ Modern Monetary Theory (Kelton, 2020) seems to suggest we could just invent what we like, based on our willingness to accept. An acceptance based on the idea that if wishes were horses, beggars would ride is doomed to disappointment. It is sharply contradicted by experience: “The creation of money is harmless only if it is accompanied by a simultaneous increase in the quantity of services and goods. To render payment without receiving any equivalent value is possible only to a limited extent; Often such payment is damaging economically. This is just as true for the national economy as it is for the economy of the individual. Gifts and expropriations (robbery, war tribute) are exceptions which are uninteresting from the point of view of political economy. The party political slogan ‘prosperity for everyone’; is based on false premises” (Schacht, 1967:142).

poor with UBI start to buy goods earlier in time than they otherwise would have done (DeFilippo & Soko, 2022; Haushofer & Shapiro, 2016), e.g., change clothes, home improvement). Schumpeter suggests the critical figure is related to land and population which is manifested in the tool of money. Money is tied to the critical figure and the equilibrium related to it.

For me, the relationship breaks down, to some extent, in a local area. Schumpeter himself suggests both: that the critical figure is decisive (but here he is considering macro-economic policy), and that things can be mediated by monetary policy. This contradiction is not resolved. Just because we have the concept of a money tie to a critical figure, based on goods and services, which in turn are based on land and population, does not mean we cannot make policy decisions that affect that critical figure in special circumstances. A community of use can alter some of the flows to make their own flows. By using a CC, they can decide to incentivize a counter-movement to many other aspects that are the consequential implications of the critical figure.

Further, I maintain that the community of use can decide to ignore the natural limits (or rather, the macroeconomic limits) and create their own local critical figure. They can alter Greco's local economic base. I hold that a Malthusian limitation can be modified by technology, policy, and cultural practices. If there is an investment in a resource or a particularly high natural endowment in their economy, they can act differently. Can does not mean do. In other cases, the macro-economy can tie members of a community down and prevent independent action. For example, enforcing tax payments, incentivizing money outflows for investment, and controlling the means of money inflows via benefits, subventions, or other means⁶⁰. The money spent on marketing and consumer education suggests that people are motivated to spend, not only due to demand-side pressures, but that a supply-side can influence behavior and thus the critical figure beyond satisfying real needs.

So what of the critical figure? How does it relate to the cycles and waves of the economic system? Even if there is a critical figure for modeling's sake, it does not create dynamism. The shortest cycle, which is the seasons over the wheel of the year, seems related to the growing season, as found in temperate climates. We might relate the Juglar wave, often known as the business cycle, to the roughly decadal⁶¹ oscillations known as the El Niño-Southern Oscillation (ENSO) of El Niño (warming) and La Niña (cooling) events (Trenberth & Fasullo, 2013). Certainly, this relationship seems reasonable in productivist economies touched by climatic factors. There are some that argue there is such a deterministic effect

⁶⁰ Here Schumpeter's work is suggestive, as he intimates that money comes from credit. The credit theory of money would allow us to just create money. Nevertheless, the money so created must be based on something—land and population, and the broad concept of "economic" reasonableness. This means money does not arise spontaneously just because the concept of credit has entered the minds of people. Schumpeter seems to hold this view.

⁶¹ Schumpeter said these Juglar waves were of a "7- to 11-year" periodicity (2014:127); Trenberth & Fasullo of "ENSO and Pacific decadal variability" (2013:30) implying that the ENSO is of decadal periodicity; and Laosuthi & Selover "irregular fluctuations varying from 3 - 7 years in length" (2007:24) "along with several other such systems of "oscillations" around the globe" (2007:23).

(Brunner, 2017 [2002]; Smith & Ubilava, 2017) and some that the effects are more heterogeneous, with variations for different countries (Atems & Sardar, 2021; Cashin et al., 2017; Hsiang & Meng, 2015), so it may be questioned if it is a significant causal factor of the business cycles or not (Laosuthi & Selover, 2007).

Though both short-term periodicities (the business cycle and ENSO) occur regularly, they vary due to other inputs. They, until recently, took place under two constants: the solar constant (despite solar flares, sunspot periodicity, etc.) and the Holocene. Both constants gave the background in which our civilizations and certainly all money operated.

There were long waves mentioned earlier. There was a longer periodical change that seemed to last about a lifetime. This was the Kondratieff wave of around 50 years duration (Schumpeter, 2014). Elsewhere, Schumpeter (1964 [1939]) mentions “evidence of the presence of movements of average period longer than that usually attributed to the Juglar cycle” with “average periods of roughly 25 and 15 years”. He also mentions shorter waves of Crum “of roughly 40 months” which Kitchin showed better (1964 [1939]:172). As this thesis is not about macroeconomics – where these waves are postulated – I will not analyse them in detail to see if they are statistical artefacts, nor if an ANOVA can reveal if they are inter-dependent or not, neither look to see upon which natural phenomena they are based.

More relevant is whether, if there are waves, they can be related to the natural world, in a way that is relevant to a more community-based economy we shall find with local circular functioning. It is relevant to consider if the longer waves reveal a broad trend of development. Development could be a culturally evolutionary process. It could recur given the right initiating conditions.

I caution that a teleological imperative can be read into such change, (cf. Gruenwald (2007) for more on how the teleological imperative is a human tendency). Development, as these waves suggest, can be related to the Enlightenment idea of progress. The idea of progress is embedded in Western philosophies (Zerzan, 2012; Jensen, 2016). Things must get better and improve. Progress is severely questioned by the indigenous perspective I mentioned before.

Rather therein a degrowth economy that has reached a steady state is more typical. If we read Sand Talk (Yunkaporta, 2020), we see that the idea of time being cyclical in Australian indigenous thinking means that there is not always progress per se, though there is always change. Rather, there is more of a cycle of reincarnation and rebirth. Looking at time in a cyclical way could work with Schumpeter’s ideas around cycles too. The new periodicity is not antithetical to a circular pattern of time. There are longer natural cycles with a similar cycling. Clements’ ideas of a climax community (Pickett et al., 2009), which may never be reached due to stochastic events interrupting, would fit well in this conception. Human cultures can play a part in this drama. We can see shifting cultivation cultures that function cyclically with initial conditions, transitioning to more stability before movement, and a requirement to start over with a new location

with verisimilar initial conditions⁶². In fact over the long cycle the culture shifts over to the same locations where it commenced from (Myllyntaus et al., 2002).

For Schumpeter, the impetus⁶³ for that burst of growth is entrepreneurial pressure; “entrepreneurial activity” (1964 [1939]:138); a “spurt of innovation” (ibid.:148), which leads to “Economic Evolution” (ibid.:83). In natural plant succession, ruderal species quickly colonize a new environment, before other species come in and rapid growth is no longer possible. Plant succession is analogous to a new business cycle instigated by a burst of innovation, and then the market waxing and reaching a plateau with a decline as a larger player dominates. A disturbance can arise from a stochastic process at any time in that succession⁶⁴. Once an ecosystem is mature, there can be an inbuilt process for local disturbances to arise within it. An example is a bark beetle outbreak in an old-growth forest followed by a forest-fire that burns the deadwood in a blaze before new growth starts over in an interactive oscillation over time (see Ives & Carpenter (2007) for a review of stability and dynamism in ecosystems).

“Finally, monetary theory, as well as theory in general, has to come to terms with external disturbance” (Schumpeter, 2014:128). The same can be seen in a local level community economics intervention. We might expect if an intervention were sufficiently targeted, that it would stimulate a wider range of innovations in a suitable community of use. One intervention alone would not comprise the whole stimulus package, but in a constellation of interventions and changes a difference could be made in a targeted community. There is some evidence for a constellation of interventions approach making a difference.

In Sysmä (Article I), there were several initiatives at the same time: a new political residents’ polity (Juhola & Karola, 2020), support for book towns, and the Yksi Sysmä artistic intervention. There would be a cluster effect if we looked at the different interventions. Could we tie interventions to a longer-term cycle or trend as a stimulus? In Sysmä these initiatives were in reaction to rural population decline. That decline has been going on for some time. So why now? There are other cases outside Sysmä, as there is a general decline in all Finnish

⁶² Such change is revealed in the Finnish saying, “Oma maa mansikka, muu maa mustikka.” I directly translate it as, “Own land strawberries, other’s land blueberries.” There are different interpretations of what it means. One that I heard is that it refers to the slash-and-burn shifting culture of Finland; when land was cleared and planted strawberries grew there, and the land was not available for others to use. Yet, over time, the cultivators would shift away, and the wild forest would once again take over the land, and thus it was someone else’s, i.e., available to be recolonized by new shifters. Cf. Pietikäinen, 2011; Kuisma, 2014.

⁶³ “Now if we do ask this question quite generally about all the fluctuations, crises, booms, depressions that have ever been observed, the only answer is that there is no single cause or prime mover which accounts for them.” (1964 [1939]:25), shows the cause of impetus is unclear, though external factors may well stimulate innovation. The impetus may well be an autopoietic property of living systems (see Capra (1997) for an exploration).

⁶⁴ There are natural examples of such outbursts at a grand scale. Punctuated equilibrium in geology (cf. Givel (2010); Boushey (2012) for origins and the application to public policy, and innovation) is one theory to explain the massive evolutionary adaptation of species after an extinction event. More broadly, the idea of population dynamics with rapid growth, followed by a population crash can be seen in many species; a famous one is the crown-of-thorns starfish plagues (Moore, 1990). These are periodic and part of the system.

small municipalities, yet not all of them are undergoing bursts of innovation. There is a rise in support for Perussuomalaiset and The Green League, with a decline for the Centre Party, but none are causatively demonstrated with population change.

In the case of BookMooch and BookCrossing (see Article II) a spurt of innovation occurred at a certain point where there was a relationship to growth in internet affordances, enough people had technological access and understanding to make these services viable. BookCrossing and BookMooch have lasted, but they were not the only systems that appeared as the threshold was crossed: there were tiny libraries (Snow, 2015), ReadItSwapIt (peppercricket, 2022), PaperbackSwap.com (Cannon & Le Blanc, 2014), and those working with different goods from books (CDs, collectibles), and several internet marketplaces. The economic succession to a dominant player has come to pass as the internet giants in online marketplaces and social media have swelled and out-competed most of the smaller players.

Is adversity the mother of invention in the case of VTS? (Article II). There does not seem to be some intense pressure that encouraged the adoption of a points scheme. There was pressure for more democratic accountability and to reach a good life, but the points scheme seems very much a personal initiative of the principal informant rather than because of pressure from a broader societal trend. The growth of an Ekotiimi [eco-team], AD-rhymät [residents' democracy groups], and other initiatives happened, but are not matched in other social housing provision in Tampere.

NomadTown (Article IV) came about due to ideas of climate change, the great transition, rural regeneration, and the confluence of these in the people concerned with a desire to do something concrete. However, these desires were there before with these people. How is there a societal change? Perhaps it is more of a maturity and opportunity change? Maybe people of a certain age want to do something and have the capacity to do that?

The individuals (in Article IV) came together as young middle-aged adults (with children still at home) who were not invested in society, for example in a steady full-time job. They were partially so positioned due to longer-term demographic trends. i.e., the baby boomers till recently hogged the jobs that capable younger people would have gone into (politics, managerial positions, etc.). As a reaction to not having the chance to take that work, the younger social entrepreneurs were entrepreneurial in terms of the environment⁶⁵. The social exclusion was a stimulus for them to act with agency. Waithood is a stimulus (Honwana, 2014; Mwaura, 2015).

⁶⁵ This thesis is not about entrepreneurship. Innovations are different from inventions. Entrepreneurs are different from inventors. While certain conditions can foster all of these, there must be initiating conditions. The adversity stimulus has been postulated for individuals (Macdonald, 1989), where human proclivities are considered. It can be that environmental change leads to different conditions that stimulate. These disturbances are external to the capitalist economy. Schumpeter (1964 [1939]) believed there is an inherent stimulus in the Juglar cycle, one where we might consider r and K strategies (MacArthur & Wilson, 1967), which would lead from boom to bust as profit margins decrease over time. The population cohort is responding to that cultural stimulus of exclusion with varied adaptive strategies.

Wahood has acted as a stimulus, as a social pressure. It and the response to it could be seen as the manifestation of Polanyi's "double movement" (2001 [1944]:138). Thus, we see "the principle of social protection aiming at the conservation of man and nature as well as productive organization, relying on the varying support of those most immediately affected by the deleterious action of the market-primarily, but not exclusively, the working and the landed classes-and using protective legislation, restrictive associations, and other instruments of intervention as its methods" (ibid.:138-139).

We now have a stimulus from climate change threats. Surely, rather than the operation of the market alone, where "the necessity of protecting natural resources and the culture of the countryside" (ibid.:138) can be seen manifesting in the creation of Sydänlanka ry, NomadTown, and localized community economics (Article IV), we must consider an ecological reaction as part of the process of double movement. Gaia is hitting back⁶⁶ after the assaults on her planetary boundaries by pollution, and the ravages of the machine of economic exploitations engendered by population excess. Her kin are responding to her clarion call for resilience, regeneration, and sustainability.

Do these counter-measures reflect the Western view of progress? It certainly depends on how they are presented. Not necessarily the 'progressive level' that is linked to them. For example, when linked to an economic idea of growth then sustainability has an anthropocentric bias. Providing for more people, while maintaining the standard of living, does mean that the critical figure must grow somehow. Growth might be at the expense of all the land animals, forests, or fishes in the sea (Attenborough, 2020). Such (economic) sustainability, which is very much not that intended in the Limits to Growth (Meadows et al., 1972)⁶⁷ varies from the conception found in forward-resilience.

With forward-resilience, there can be an element of relinquishment. There are elements of refusal or removal in the related circular economic conception. A resilience plan working from these R practices could replace fast fashion with slow fashion, waste less materials, and make more durable products. Beyond clothing (where people are working toward these aims), we can extend various R practices to more sectors of society (Iagăru et al., 2023). The corollary is that the amount of money would shrink too, as the critical figure would come down as fewer resources (based on land) would be needed to support the same population. Shrinkage can be progressive - but would reductionism be seen as progress? How about if we were to make our shoes from the birch bark, which grows abundantly, and not the manufactured synthetic nubuck as now? We would demonetize the economy through degrowth, and the flows would change too.

⁶⁶The Revenge of Gaia: Why the Earth is Fighting Back - and How We Can Still Save Humanity by James Lovelock (1996) from Penguin, follows from his Gaia Hypothesis that the Earth, personified by the Greek goddess Gaia, is a complex of colonial organisms and abiotic features that synergistically self-regulate.

⁶⁷"It is possible to alter these growth trends and to establish a condition of ecological and economic stability that is sustainable far into the future. The state of global equilibrium could be designed so that the basic material needs of each person on earth are satisfied and each person has an equal opportunity to realize his individual human potential" (Meadows et al., 1972:27).

We are not in the Holocene anymore, so we must change. We must go local. These alternatives really matter. To achieve dynamic harmony with the natural world (rather than a static system), we can find ways forward⁶⁸. Article III suggests we might look to implement them via methodological utopianism and simulacrum case study research. Having discussed what could be seen as a cosmogony of money and economy, the practical aspects of implementation are also of concern. This is really the way of money in the community.

2.5 Near Money & Money in Use in the Community?

Different parts of the money supply are used in different ways. How we talk about and use them is covered in this subsection.

2.5.1 CCs framing & naming

I chose to use the term ‘community currencies’ here because I focus on the communitarian usage of monies. The community is where the emphasis is, rather than how a currency relates to other community currencies or other currencies used by any community, either the mainstream culture or the sub-culture of the community explored sociologically. Other scholars see more of an emphasis on currencies being introduced into an ecology of existing currencies or monies. They refer to those introduced as ‘complementary currencies,’ with local, regional (often called *Regiogeld*), or even global currencies used as terms (Kennedy et al., 2012b).

This framing is a result of submitting to the realpolitik of mainstream economics and nation-state fiat currencies. Fiats’ ubiquity leads to an exercise of power, which gives them a monetary near-monopoly, e.g., in Finland, previously via the markka and now the euro, over our ideas about what is currency or money. In France alternatives to the euro are principally banned or heavily restricted (Bureau CL1C, 2016). By using the term currency with ‘complementary’ (as in ‘complementary currency’), the existing system is legitimized and given value. Wielding ‘complementary’ acts as a double-edged sword as the alternative system (partially the challenging of the hegemonic system is the reason ‘*alternative currency*’ is used / avoided as a term), becomes an integral part of the existing system. By such use scholars and practitioners tacitly accept the hegemony of the existing fiat money, central banks, and concomitant political economy.

⁶⁸ As an altermondialist, I think in terms of ways forward, and not one single way. There is a lack of clear paradigms, though merit lies in the perspective of the commons (Ostrom, 2005) and evolutionary economics (evonomics). Thus, we might look to the natural world and how it functions to think of different economic philosophies we can apply for our futures. See Wilson & Gowdy (2013); Wilson (2016) for more on evonomics. Cf. Franco (2018) for ecological economic thought, that takes a more “biophysical approach ... with a more materialistic view of economic processes as flows and stocks of energy and matter.”

There is an argument that a community currency only functions well if there is an existing robust institutional framework, including a well-working fiat currency (Pfajfar et al., 2012). In such a situation, a CC is not an alternative, in the encompassing sense of a new monetary system. The semantic field around the word alternative varies, with many seeing a Marxist dialectic of anticapitalism and others just minority praxis (North, 2005).

Alternative, as a term, can be seen as a way of expressing altermondialist views (Group of Nineteen, 2005; Patomäki & Teivainen, 2004; Petz, 2013), which can be an agonist position in favor of plurality (Gómez, 2018; Gómez & Dini, 2016) rather than a stronger counter-culture or anti-globalization positioning (Lietaer et al., 2012; Tibbett, 1997). Quite where the shades lie depends on the author's politics, but alternative currency taxonomies try to encompass generations and nuance, e.g., Blanc (2011); Hileman (2013); Larue et al. (2022).

Depending on our perspective, we can say a CC is near money or is not near money. Near money refers to any financial instrument readily convertible to cash money. Hereby hang many nuances in usage, which vary according to what kind of economist you are. An anthropological approach would consider how a CC is used by a people in relation to other money functions served by other tokens or systems. A psychological economics approach would consider how users regard a CC. A mainstream economist considers how a CC relates to fiat currency. These perspectives would affect what might be considered near money or not. See Chan et al. (2016); Lea et al. (1987) for ideas around what is near money, and the idea of restricted money as coupons – described as *primitive money* by Douglas (1982 [1967]).

Cash money is understood as fiat currency that can be spent, so is predicated on the concept of a market where the spending takes place. Thus, in Finland, US dollars are near money, but are not money, as you cannot spend them to buy material goods as general purpose money. They are not *legal tender* (SP-FB, 2017:118). Legal tender is another term with varied usage, which principally means that the money that is tendered (offered) must be accepted to pay off a debt (Harju & Snellman, 2021; KKV, 2021; Rehn, 2010), but is commonly interpreted to mean “the recipient of a payment is obliged to accept” (SP-FB, 2018) the money in the form compliant with legal tender provisions.

2.5.2 A beautiful transaction, the aesthetic value of coins & notes

A consideration of coins is informative. In Finland, I can use coins. In the local supermarket, I can take cash money (bank notes) from an ATM with a bankcard. There is often a machine to convert banknotes to coins next to the fruit machines found in most supermarkets. I can buy groceries with those coins.

Alternatively, I can ignore the ATM and the coin change machine and use the bankcard to directly pay for them. I can pay by card, even if I just came from the USA and have never owned any euro money in any form. Using coins has no advantages and considerable disadvantages. I can only get the coins if the ATM and coin machine are working. If they work, the till where I can pay by card works too.

Do coins have an advantage? Anonymity? No, because I can use an anonymous prepaid card. In a power cut? Yes, but cuts are uncommon, and only if there is a legal requirement to accept coins for payment (SP-FB, 2017:118), or at the merchant's discretion, which increasingly means no⁶⁹. Some merchants will not accept coins if their electronic till is not working. What if the bank's IT system is broken? Yes, but then I cannot get coins in the first place, or I must carry a lot of cash money with me.

Maybe coins make a certain restriction, and if we had a CC and only accepted that, it would keep the money in the community? No, as digitally the same restrictions can be applied, e.g., Plussa money, which is only spendable in Kesko Group stores; or geographically, as with the UK's COOP cards, which are only usable in the district of issuance (technically a different co-operative society). Some cryptocurrency chains limit where money is spendable (Tsuchiya & Hiramoto, 2021).

Cash money still works to some extent, as coins and notes are still in use in many lands. However, people diminishingly use coins or even notes. We can extend the no cash trend from paper currencies and eventually to card monies too. We are moving to phone-based systems. With an app or QR code from my mobile, I can pay for groceries, transportation, or make personal transfers. Phone payment is a worldwide phenomenon. Kulikauskas made phone credit transfers as a peace-building activity in Kenya over a decade ago (see Pyramid for Peace (Beardon, 2009:5) and (Kulikauskas et al., 2008; Kulikauskas, 2014).

Beyond an efficient means of payment, there is a place for traditional CCs. If we consider postage stamps, there is a dual function of collecting special stamps as commemoratives and functional proof of postage. These functions are often separated, as when postage payments are replaced with stickers, QR, or bar codes, by many businesses. Public desire for pretty stamps remains.

If a CC is issued for festivals or as a tourist souvenir, seigniorage⁷⁰ can result. Our commodified cultures of festivalism have remunerative potential, yet the costs of making such a currency question its moneyspinning viability. The art must be good enough for people to keep enough bought currency to offset the costs. However, aesthetically, pretty currencies increase the beauty of life, or in other words, raise cultural capital. Symbolic capital is raised when souvenirs are shown to others who may alter their behavior or visit a festival or tourist location as a result. A marketing function thus justifies the worth of CC production.

⁶⁹ While writing this thesis Tampere's municipal libraries stopped accepting cash for photocopies, and the local bus service, Nysse, cash fares. Finland has card-only places. The law is shaped by the European Commission Recommendation: "The acceptance of euro banknotes and coins as means of payments in retail transactions should be the rule. A refusal thereof should be possible only if grounded on reasons related to the 'good faith principle' (for example the retailer has no change available)" (Rehn, 2010).

⁷⁰ I use the term seigniorage as it is a deliberate policy to make aesthetically pleasing notes, coins or cards. Bindewald et al. (2015:124) call it "leakage", seeing the profit made from unredeemed money as more serendipitous. Technically it is not leakage (Wright, 1956) as the CC is substituted for other (fiat) money, which remains in the local economy, only the representational token is removed.

In Sysmä, some of the attraction to using the sysmä was that people could have their own sysmä with their own design on it. As that ‘money’ could be kept after use, customization was an attractive proposition for tourists and children. Sadly, the project failed to cleverly take advantage of cosmetic customization (Gilmore & Pine, 1997).

2.5.3 Commensurability of various parts of the money supply

As we segue into a world with *e-money* and digital currency and begin to operate at a global and not a local level, physical cash money becomes an abstract idea. Ironically, cash often cannot be spent, whereas *digital money* can be, e.g., retailers will not accept some banknotes, yet they accept credit cards, prepaid debit cards, and even multicurrency cards or *electronic wallets*. Multicurrency cards (or wallets) may see conversion between different fiat currencies by a service provider, e.g., the *challenger bank*⁷¹ Revolut (Polasik et al., 2022).

Should e-money be considered as money or near money?⁷² Strictly speaking, it is near money, just as bank deposits and cheques are. It must first be converted to fiat money (or an accepted CC) to be spent. Mainstream economists are concerned with national economies or large functioning economies of millions of transactions and want to look at fiscal policy and commonly designate money under terms of *narrow money* (strictly fiat cash money alone) and then *broad money* (which starts to include other assets used as money, that may be limited in access in some way).

This narrow to broad ontology varies, but the terms M0, M1, M2, M3, and M4 are used, with M0 the narrowest and M4 the broadest. Different central banks define these differently (Bryant, 1980). Banks varied over time in their idiosyncratic usage as to which financial assets and instruments comprise the money term in question (Janssen, 2005). Variance applies as to if interest is calculated or not when calculating money amounts under the categories. Today, the European Central Bank, which controls the money supply in euro, that is the fiat currency in Finland, regards M1 as “A “narrow” monetary aggregate that comprises currency in circulation and overnight deposits” (ECB, 2021).

There is another nuance relevant for studying CCs, *substitutability*. Mainstream economists, beyond considering convertibility (changing something into cash money or vice-versa), want to know: Is it substitutable? Can I buy my morning blueberry bagel with strawberry cream-cheese with the near money in question, just as I can buy it with cash money? On what terms? How substitutable? Would I want to do this? If terms are identical, it is *perfect substitution* (Case et al., 2020b:82-83); if not, then *close* or *distant substitution*.

⁷¹ The bank is a challenger, as it is challenging the major players in the market. In the case of challenger banks, they tend to be virtual online banks only, with phone or computer-based banking. The range of services is often limited, and they target high-net-worth individuals or those in stable employment to offer retail banking to them.

⁷² Hence the calls for a central bank digital currency (CBDC) to be a “new form of money” (Bank of England & HM Treasury, 2023).

When you substitute fiat currency for community currency, the process is called *currency substitution*. If I substitute one CC note for another CC note of the same currency or smaller / larger denominations, it is said to be *fungible*, i.e., it is within the same category and not discernibly different. Here is where it is important to look at the substitutability around different monies. In theory, cash money is substitutable with digital money in my bank account, only it is not. My children can spend cash money in a shop, but they cannot access digital money; they must do it through me or online bank codes. This extra procedure means it is not substitutable for them.

Money can be made more accessible and usable in a wider range of circumstances, something cryptocurrency enthusiasts rave about (Mayer, 2023; Elyashiv, 2022; Dung, 2023)⁷³; or less accessible and restricted, as found with DNA-stained stolen notes (Mead et al., 2014); or digitally marked with a mosaic as stolen tokens (Tsuchiya & Hiramoto, 2021). Many community currency projects introduce restrictions on how and where their money can be used. For example VTS-points can only be spent with certain suppliers (from VTS's approved list); only certain businesses in Sysmä were allowed to cash sysmä in (they had to be based in Sysmä not just operate there). The French local complementary monies are not allowed to be paid into a bank account by ordinary people (Bureau CL1C, 2016). Such restrictions affect consumer acceptance and the possibility of carrying out currency substitution (either partially or completely).

The measure of want (*willingness to use*) or consumer preference is called *indifference* and is diagrammed with indifference curves (Case et al., 2020a:170-177), wherein spending can be mapped for cash versus an alternative. Here *utility* is looked at by the proxy of market behavior (Chetty, 1969). Utility is the usefulness of something. Economically utility and preferences are encapsulated in these indifference curves. When we start to consider different financial instruments, we can compare their indifference curves over time. For example, did I keep my savings in the last 10 years in short-term 90-day deposits or in 1-year bank certificates, and what percentage of each?

Mapping indifference is harder to do with community currencies. The brief time series, low volumes of transaction data, difficulties tracking where spending happens or does not happen, and attributing use or non-use to an expressed preference, rather than an availability heuristic, are problematic ⁷⁴. Even calculating econometrics for fiat currencies has issues. One solution is to produce a constant that can be used as an approximation. This is called the *CES* (*Constant Elasticity of Substitution*). Elasticity encapsulates the idea that if one variable changes, another one is not only correlated, but a causative relationship can be established. As in the savings example above, an individual's circumstances may

⁷³ There is hype around any new technology, but these authors claim increased versatility after a recent hype phase and not directly as a part of it. Nevertheless, they are not neutral on these claims.

⁷⁴ Some LETS schemes have 30 years of digital data (John Rogers, personal communication 2018), BookMooch has all transactions recorded, and increasingly digitally based schemes can be tracked.

vary over time. They will be at different life-stages over a decade re relationships, children, etc. It is not individuals who are considered, rather an aggregate of many households is used to give an average. Unpicking this CES re community currencies reveals the economic bias of the economist and questions seriously the meta-level assumptions and framing used.

Is CES' Constant really a constant? More accurately, it is a variable within a bounded variability taken from prior econometric data. Using the past to predict the future ignores, in its simplification, many of the aspects where a community currency may be introduced. If a CC is considered part of the money supply, then an elastic relationship might be established, but often CCs are introduced into an environment where an activity was not part of the economy, so there is not a relationship in existence to be measured. Here we are expanding upon Schumpeter's critical figure (see 2.1 The Problem of Money, on the critical figure).

A CC could be introduced for unemployed people to pick up litter, that then gives them CC, which can be exchanged for free access to local gyms and swimming pools on quiet days. Thus, their relationship with the existing monetary flows in the leisure sector must be questioned. Such use of volunteering⁷⁵ creates new economic activity (*growth*), which is happening in the UK (Ntounis & Bailey, 2018; T&A Reporters, 2021), and is identified as making use of "under used resources" (Kennedy et al., 2012b:214). This is the substitution of time, but not economic substitution. Substitution works if there is a direct substitution (apples replaced with oranges), and not for *complementary goods / services* (I buy more napkins because I eat oranges and they are juicy, and I need the napkins with the oranges) nor *independent goods / services* (I buy more toys as I have children, and the toys are neither substituting oranges, nor complementing them, i.e., there is no *cross elasticity of demand* between fruit and toys).

So, for example, we could look at the simultaneous spending of:

- Plussa money, K-Group's loyalty card points system (Kesko Oyj, 2022),
- cash (fiat) money,
- cashless transactions from a card / phone, and
- bottle deposit refunds during a purchase in a store; and
- sysmä, in the case of the K-Supermarket Suvituuli in Sysmä too.

Thus, there are 5 different near monies and monies used in the same transaction. Why would we decompose them? To make explicit the *money supply* on a local level. It allows us to evaluate the economic effects of a CC in a monetary environment. Thus, behavioral modification and financial changes become clear, with each money revealing different actions. In the case of a community scheme getting more people to go to the local social club, we might see more fiat money

⁷⁵ Note this is called "volunteering", but there is an element of compulsion and consumer education. This is nudge economics, where desired behavior is promoted rather than intrinsic motivation by those litter-picking and now working out in the gym.

spent on victuals in the club; as indeed happened with the time credit at Blaengarw Workmen's Hall, Wales (Kennedy et al., 2012b:171).

In Sysmä, a direct comparison can be made between the S-market⁷⁶ supermarket, which did not accept the sysmä CC; and the K-Supermarket Suvituuli, which did. As sysmä were not accepted in one supermarket we could compare a customer preference between them if sales dropped in one and rose in the other. Furthermore, Suvituuli's store manager could see after agreeing to accept the sysmä CC if it was a good business decision by the data showing amounts spent by her customers of the different currencies. The ratio change over time could indicate increased spending in sysmä. The purchase data showed that much of the sysmä CC flowed to the Suvituuli supermarket⁷⁷ (rather than conversion to euro by the issuer of the sysmä CC) from the business users with sysmä CC they had gotten from their customers. So, accepting the sysmä was a good business decision. Here we can consider sysmä near money.

The last initial of CES stands for substitution, and acceptance of 'substitution' slides a premise beside ourselves. The premise is that we merely wish to substitute avocados for kiwis. If we only want green fruit, substitution works, but not for making guacamole (as my mother-in-law tried). Often, a CC is introduced not as a substitution for buying the same goods and services (as functionally happened in Sysmä), but for valuing and transforming a community in relationship to other aspects. The intention is local economic spending is stimulated, and a switch from exogenous to endogenous growth in a community is caused. The Bristol Pound CIC attempted these changes (Marshall & O'Neill, 2018). Replacement efforts must consider psychological (Lea et al., 1987), political (Fare & Ahmed, 2017), and cultural factors (Petz & Finch, 2022, 2023), and not just simple economic substitution based on efficiency or economic rationality. Economists might regard these factors as *externalities*, but they are fundamentals for evaluating a CC – which is a money for a purpose.

Here we return to the idea of near money. There is a presumption built into *Oresme-Copernicus-Gresham's Law* (Sparavigna, 2014) that there is a *money hierarchy* (Bell, 2001; Wray, 1990) and users would want to get rid of, by spending away, "worse" money where they can. The worse, so-called bad money is easy to conceptualize if we think of high levels of forged coins or notes and people suspicious of holding onto them. But the bad money premise breaks down if people are holding and using money as part of an ecology of money, where they want both a national fiat currency and local community currencies occupying diverse cultural niches. Here it is not only the money itself, but the associations it holds for members of a community of use. There can be no desire to reduce or

⁷⁶ There are 2 large supermarket groups in Finland: S-Group, "S Group consists of 19 independent regional cooperatives and SOK, which is owned by the cooperatives," source: <https://s-ryhma.fi/en/about-us/s-group-in-brief>, which trade under the names Prisma, Sale and S-market; and, Kesko / K-Group, "Our grocery store chains are K-Citymarket, K-Supermarket, K-Market and Neste K. Kespro is the leading foodservice wholesale provider in Finland," source: <https://www.kesko.fi/en/company/divisions/>

⁷⁷ As a general store and grocery supplier it acted as a key node. The same retail mix creating a key node was seen with the Bristol Pound trading data (Petz & Finch, 2022).

replace what are separate domains of money within their *econospheres*, e.g., book tokens in the book readers' community of use.

Book tokens were introduced in the UK in 1932 by the National Book League (Simmons, 1971) and are promoted by The Book Sellers Association Limited. Promotion, as part of the marketing mix, is done via Caboodle, which is the rewards programme from National Book Tokens, with Caboodle points (National Book Tokens, 2021). Participants can get free book tokens and some free books with Caboodle points. Originally, points were "just for fun," gained by participation in competitions and giveaways. Many do the activities and buy book tokens, effectively a *special purpose money*, "designed for, and restricted to, use on books" (National Book Tokens, 2021).

A similar restriction applies to BookMooch (see Article II Discussion:42-43). The mainstream economic premises around the hierarchy concept, or substitutability, come up against a brick wall of indifference. People do not want to substitute and do not see a hierarchy where they prefer fiat money to these alternatives. There is a sub-culture choosing another way as part of their community of use. Effectively, they convert time not into general purpose money, but into special purpose money. The special purpose money is only *weakly commensurable* (O'Neill, 1993) with fiat, we can compare in ranking, but not give an exact equivalent value, which would indicate strong commensurability.

When looking at convertibility, to assess if near money is present and to describe the special purpose money in accounting terms, we should consider whether the notation for the money supply M0, M1, M2, M3, and M4 makes sense. How do we account for CCs in a broader monetary ecology? Personal goods and effects are conventionally excluded from the money supply, or are heavily discounted – you could sell your books and clothes, but probably not profitably in Finland in a common financial transaction. Furthermore, vouchers, tokens, and CCs may need to be included somehow for local community economics interventions. The accounting trick for these assets is to consider them as *Cash Equivalents* and apply a value to them and thus consider their converted value in toto with cash (as *CCE – Cash and Cash Equivalents*).

Valuation is difficult with unique objects, e.g., importing an item into Finland, and the customs authority demands that duty is paid on its value. How is a classic motorbike not previously sold in the Finnish market valued? At the *price* it would fetch, did fetch or second-hand prices in general?⁷⁸ But CCs are not so unique, they have a utility. That utility could be considered and converted into a cash equivalent. Just as we can convert the labor-value of women carrying out childcare (for their own children) and cleaning (in their own households) to an economic value. Parentheticals reveal that conversion is contestable.

There is an alternative to conversion, i.e., to report separately in a kind of *value accounting*. We could create a new notation: V1, V2, V3, and V4 or NM0... or CC0... or ~~M0~~... which would allow us to record economic transactions where

⁷⁸ Accountants do have various (imperfect) solutions to value such assets via "historic cost;" "net-book value" which takes into account appreciation or depreciation; and "fair values" which estimate market prices for replacement. (Atrill & McLaney, 2011:58-59).

a CC is in use. Would value supply notation work for multiple currencies in an ecology? Would the same fallacy of substitution be hidden in assuming a CC and all near money are merely engaging in substitution? Is elasticity the same? Alternative notation ideas need more development to work conceptually. Development is needed to value more kinds of capital flows accurately and explore the effects of broader inclusive monetary policy on people and planet. See Costanza et al. (2015) for a discussion around total welfare, well-being, and ideas behind sustainability and how to account for these values.

There are sound economic reasons, for not just converting CCs to cash equivalents, and thus fiat currency. Fiat currency commonly devalues over time, as the *money illusion* (Shafir et al., 1997) proves. While some CCs are linked to national fiat currencies at 1:1 or similar ratios, not all are, e.g., the Neco that has its value decided by the community of use, partly by the Collexa referendum process, see Article III. CCs can have a pegged conversion to a good, like an egg (de Vries, 2010-2023) or a service (Ussher et al., 2021). Pegging to a good allows CCs to hold a value in terms that are acceptable to a community. Where CCs are not pegged to a good or service, as in the case of time currencies based on hours, such as those issued by one of the Helsinki Time Banks, then conversion is problematic if trying to assess tax liabilities (Eskelinen, 2018; and Eskelinen & Van der Wekken (2022) for a time-based tax called the tovi [moment]).

In the case of a time currency in Finland, tax liabilities are based on the collective agreement, that sets a fixed hourly rate in fiat currency for a profession. So, when is the conversion to fiat, for the tax to be paid from, to be carried out? If a cleaner spends an hour cleaning and gets a 1-hour time token and wants to buy 1 hour of time from an electrician, then their different tax liabilities (as mandated by law as determined by the tax administration) mean that someone must pay a fiat currency penalty in terms of tax (the electrician would have to pay to accept the 1-hour token from the cleaner and must pay in fiat currency) or work less time. Such tax protocols undermine a currency based on 1 hour is always worth 1 hour for everybody. It prevents the unemployed / underemployed taking small jobs as they cannot pay tax in the money (time tokens) that they earn.

In the case of points systems or cryptocurrencies (which are nigh on all near money as you can buy hardly anything directly with them), the value effectively increases re fiat currency. With cryptocurrencies, tax is levied in Finland on profits accrued at the point of conversion back to fiat. Profit is assessed as a euro ratio, without taking into account any money devaluation the euro has suffered. The crypto has not increased in value, but due to the money illusion, and in-built devaluation via inflation, the euro value has decreased!

Conversely, many CCs, to increase money velocity (de la Rosa & Stodder, 2015) and reduce *hoarding* (or *pooling*, which is a less deliberate accumulation of money by an actor), have introduced *demurrage* – a time-bounded decline in value⁷⁹. See Godschalk (2012) for a review and application implications for a CC;

⁷⁹ Demurrage means delay, and the idea is there is a delay in the loss of value of a money note, by periodically (e.g., once a week) sticking a stamp on it. At the end of a period, the

Gesell (1958) for the inventor of the theory and his conception; and Boyle (2002) for some proponents of demurrage. Demurrage makes calculating cash equivalents difficult as the utility varies over time. Conversion fees need to be considered, which can vary depending on the amount converted, so a simple metric of how much is in the system must be worked out for each individual with varied preferences. Calculating that is usually impractical and significantly inaccurate at the low-level of usage found in most CC schemes.

Future discounting is another issue that is more relevant to CCs than mainstream economists tend to consider important. In an agrarian community the harvest time is significant. The ideas of *supply* and *demand* do not work if there is a massive glut and then a gradual tapering off of supply. Effectively, the supply is instant and then non-existent. The farmer cannot produce more potatoes a month after the harvest if demand goes up (though storage and release to the market can affect the price of commodities). So, the value of a community currency that is backed by a *commodity* can vary in fiat terms. Trying to say what the cash equivalent of mackerel, rice, or wood (all used as *commodity monies* in the 21st century) is by using *commodity prices* fails to separate the *use value* of a given money. A *basket of goods* is different from very few commodities.

Mainstream thinking ignores a community currency based on a circular sustainable economy, not on linear growth. So, a CC that is working with a time delay, e.g., planting a community garden in the yard of a housing estate, and then getting some crops as a reward when the yard is cleaned, and the crops are harvested and shared out as part of a functioning talkoot system (see Article II for details on the talkoot collective work practice), could all be supported using a CC. When do we work out the cash equivalent and how? Practically cleaning the yard is when we know how many crops there are to share out at the end. Crops might mature at different times, and *market prices* vary over time. If we give CC for participating in a talkoot, participants can exchange that CC at any time of the year—so at which time (when) do we value them? A meal in half a year's time cannot be future discounted differently from one in a fortnights' time (see Article III for consideration of time and work in Bali as a potential model).

A CC might change the local economy. Is there more economic spending stimulated? Is there any change in economic behavior in respect to fiat currency or time usage of money? Are people wealthier? Poorer? Are they gaining in goods and services or other capitals alongside the use of a CC? The aim is not to just carry out a simple accounting of CCE by the usage of near money in the

notes are swapped for new notes without stamps. If stamps are fixed, the note keeps its value. So, for example, a 100-buck note could be dated from the beginning of the year. In Week 1 of that year, the note would lose 1% of its value (be worth 99 bucks). To keep that note worth 100 bucks, a 1-buck stamp would have to be fixed to it. At the end of the year, all the 100-bucks notes that have 52 stamps are swapped for new 100-buck notes without stamps. Stamping is, of course, a fiddly, cumbersome, and prone to fraud (Melville, 1926) way of executing demurrage. More elegant ways are possible. The idea behind demurring is that money needs to perish in the same way that perishable goods lose value over time so that people do not want to hold them. We can see the same idea of privileging goods over money, with food inflation at present. Here people have hoarding cupboards of staples (as I do), rather than keeping money in the bank, or using it otherwise.

narrow sense of financial assets that are paper-based money, as a mainstream economist may do.

The aim is to look at the *shadow economy* (Schneider & Enste, 2013), other monetary relations, and the social and environmental effects on the community studied, and particularly at different cohorts like pensioners, young people, children, or the financially excluded. Even small businesses and municipal bodies or associations can be considered.

We can best consider these not by looking at cash data figures, but at flows as to how things change or are changing. This vitality is covered in Article II, and therein it is explored how currency is a flow of a capital. There are different capitals, not only financial capital, e.g., social, ecological, and knowledge capitals. How these manifest, in a network, is explored in Article IV as a practical example wherein Sydänlanka ry makes use of them around rural regeneration.

2.6 Politics of Monetary Systems

When raising the topic of community currencies, usual questions arising are:

2.6.1 Does it work?

This question is usually asked from the technical side about accounting systems, the avoidance of fraud, or counterfeiting the currency. Additionally, the system itself, how a ledger (record of transactions) operates, who manages the movement of money, and who makes sure computer systems function correctly. Thus, technical aspects rather than political governance aspects are under consideration. Technical management is important in even the superficially most successful schemes, e.g., Bristol Pound CIC, had issues over the costs of merely printing, distributing, and administering the CC produced (Petz & Finch, 2022).

As most alternative money or community currencies introduced now rely on computers, the technical competence to operate the software systems, engage in computer programming, and an awareness of issues around programmer-thinking are needed. A technological culture manifesting as a “tech-bro”⁸⁰ culture (Olson, 2022) can alienate many potential users of a community currency due to a lack of “common ground” (Olson & Olson, 2000). It leads to a desire to move towards cryptocurrencies and the connotations of secrecy or privacy

⁸⁰ Tech-bro is a stereotype, yet based on real people. “The Tech Bro archetype mainly came to public prominence with the rise of tech-focused businesses like Google, Facebook, and suchlike – the founders of such companies are often models for tech bro characters in media, to the point where you can sometimes tell which specific person (or indeed, persons) a character is inspired by. A specific sub-variant of this character primarily emerging from The New '20s is the "Crypto Bro", who (at least allegedly) made his fortune from speculating on Bitcoin, its fellow cryptocurrencies, and/or NFTs. Very similar to a Tech Bro, with a tendency to enjoy flashy spending and be even more egotistical than usual. Has a better-than-average chance of turning out to be a Con Man whose "digital assets" business is a massive pyramid scheme” (TVTropes, 14.6.2023), source: <https://tvtropes.org/pmwiki/pmwiki.php/Main/TechBro>

inherent in that subculture. The simple question: Can it be technically⁸¹ made to work? is easily answered with a yes. But whether it can be made to work, from a cultural point of view, is harder to resolve.

In the CCs I researched, cultural aspects were significant determinants of operational success. In Sysmä (Article I), the small business culture jostled against the political culture of local governance in getting the currency launched. The power gradient, where the businesses were lower in the hierarchy, led to the desires of the business community, which wanted a loyalty card, being overridden. So no card. The structures of funding were predicated on stimulating innovation, and the innovation they championed was at the level of the state. Such a macroeconomic framing regarded local innovation (as in a card) as not innovation, as it can be in a small community. The loyalty card could be seen as innovative, in the sense of a process innovation for a small business community. However, it was not innovative, in the sense of a product innovation, as loyalty cards run by a business or even a community had operated elsewhere. See Haas et al. (2016) for a discussion around innovation types in rural areas.

Once it was decided on the sysmä's format, the execution relied on someone with ICT competence. The scheme was not only a tech-project, but one requiring an outside consultancy (Arantio) to carry out the more complicated technical functions. Arantio was an outside body which did not work with a community arts approach nor any community-focused approach. The sysmä thus worked technically, but not socially, largely due to the technical process followed. It is hard to say where the problem lay. My view is that Arantio was used to working in a corporate environment providing luncheon and gym vouchers to those that sought out its service in awareness of buying that service. Arantio was not used to dealing with customers with varied usage patterns and demands, one where a consumer education process and marketing the service to a skeptical userbase were needed. There are many failures of technically minded schemes, that do not work due to inadequate use of design science in considering the task-technology fit (see Petz & Haas (2017a) for a discussion on implementation of technology).

Fiat money systems cost to operate (Wolman, 2013), which means paying twice for a money system if CCs are run as a complementary system where there is a functioning fiat money. VTS made Pisteet kotiin financially viable by including promotion in its marketing budget (the newsletter supplement) and claims the savings costs on house maintenance and resident turnover are sufficient to make the scheme worthwhile to run. Other schemes rely on companies like Colu to administer their schemes as a service (Suberg, 2019). For those who do not like that business model (it can be claimed Colu exploit businesses or local authorities with a *rent-seeking* modus operandi), there are softwares (with user communities) to support the admin, for example, Cyclos (Höllhumer & Trukeschitz, 2016); CommonsHood (Balbo et al., 2020); and other digital currency platforms (Diniz et al., 2019).

⁸¹ A deep green ecological awareness would ask, beyond technically working, to include carbon and environmental impacts - thus a big question is raised over cryptocurrencies (Majer, & Barbosa, 2022) and even carbon trading (Spash, 2010).

2.6.2 Is it legal?

There are technical regulations to allow the monitoring and security of the financial system, which include a suitable jurisprudence in how money relations operate. Regulations evolved to protect the fiat currency (with the instrumental purpose of protecting society from problematic disorder) and not with the thought to enable a community currency or alternative systems. Most people operate in a fiat monetary system and are to some extent familiar with its norms, standards, and laws. Their habitus can contradict what community currencies are trying to do (create a new norm). In practice, conventionality can conflict with what some people want to do with community currencies.

A common example is paying taxes. How should taxes be calculated? Common accounting practices rely on convertibility to fiat. Where conversion is absent (e.g., with BookMooch, where “a book in a country” is the unit of account, which varies according to the country and not the value of the book) or are convoluted (e.g., VTS’s points, earned for paying insurance that can be used for buying paint for DIY or for buying the service of a painter) or inherently has a different value system, (e.g., LETS (North, 2002), which work on time and not collective agreements with different prices for different competences) the conventional systems are not designed to cope with the differences.

What can be just a different approach looks to such a system as an attempt to defraud, i.e., tax evasion rather than tax avoidance (neither of which the policy mix of any tax-system wants to encourage). The conventional system thus places requirements and demands that make it hard or impossible for a community currency to operate. Various solutions developed where conformation with the legal system is performed by modification or co-option, e.g., a *credit union* rather than a *bank* running financial aspects, as happened with the Bristol Pound CIC and the Bristol Credit Union cooperation (Petz & Finch, 2023). Thus, through such modifications, the essence of CCs and why they are appropriate is lost.

For example, the *sysmä* was usable to buy local goods with, yet some businesses claimed that by law they had to sell alcohol and tobacco products in euro. Requirements for euro sales may be due to a legal demand for taxes to be paid on sales, which must be shown within sales records such as till receipts. It is technically difficult to adjust tills to accommodate this demand. If legislation is written a certain way, it becomes illegal to sell some items for community currency without the taxation in euro being paid simultaneously. Thus, euro accounts, euro business banking, and a system for operating the euro are necessary. The costs of operating a parallel, non-euro system make it unviable for sole traders and small businesses. If they try, they have additional costs and lower profits. A complaint about transition currencies in the UK was that bureaucracy made them a burden for small businesses (Petz & Finch, 2023).

Requirements over accounting, (e. g., FCA, 2017), privacy rights, and data protection, (e.g., Vido, 2020), impinge on the running of a community currency. None of these specifically make a CC illegal. However, historically, we can find examples where monies of various kinds were made illegal.

Truck systems (Hilton, 1960) are one kind. Truck as a term means exchange or barter. In the case of 19th century truck systems in Britain, manufacturers paid workers for labor without a conventional fiat money. Instead, like Owen's labour notes (Blanc, 2006), work led to a payment for labour in tokens, vouchers, or commodities. Truck systems were abused, with requirements that the tokens (also called *scrip*—which means any substitute for legal tender) could only be spent in overpriced shops or with limited product ranges, and so was eventually banned via various parliamentary Truck Acts (Deakin, 1992).

Similarly, a shortage of small coins and thus liquidity led to businesses creating their own *merchant tokens* in Bristol (Mays, 1978). These, along with other monies (e.g., paper bank notes) created around the time of the Napoleonic Wars, were restricted, and then effectively banned in the UK (ibid.). Weimar Germany, where high inflation stimulated alternatives (Schacht, 1967), banned "cooperative currencies" in 1931 (Lietaer & Dunne, 2013:179).

Modern examples of CCs being banned exist too. In China, Q coins and Bitcoin were banned (Nadeem et al., 2021), perhaps because the Chinese state wants its own digital money; and in the USA, regulations led to the banning of Liberty Dollars (L. White, 2014). It is not CCs specifically as a class that are always banned, but the legality of certain usage when conflicting with established systems that lead to bans which end up banning functionality and thus CCs.

Laws may not be outright prohibitions, but often create difficulties they make it impractical for an alternative to operate, e.g., in the USA, the restrictions over gold ownership by Franklin D. Roosevelt prevented any gold-based currency (Edwards, 2018); similar restrictions on banks issuing notes in the UK (Naqvi & Southgate, 2013) had the same chilling effect. These bans are imposed with the aim of monetary stability, investor protection or to protect consumers rather than a desire to kill off alternatives. The alternatives suffer collateral damage due to poor consideration by legislators.

2.6.3 They won't allow it, if it works, will they?

Behind this question lies a fear over the exercise of power. Sovereignty, governance systems, and power relations are embedded in the use of any money. There are starkly different philosophies about who holds that power, how much subsidiarity they allow, and how the exercise of power manifests.

The development of a new service and rapid scaling can happen, e.g., hospitality services, which require little infrastructure (Tagiew, 2014). So it is with CCs, especially digitally based CCs, which are a service rather than a product. The power really does reside with the users. In money relations, it is the users who decide how and where a money will be used.

Oresme-Copernicus-Gresham's Law (Sparavigna, 2014) argues for a competitive aspect as to if a money continues to be used or not. The better or 'good money' will stay in use, and the worse or 'bad money' will be spent out of use as users try not to hold onto it when there is an opportunity to express a preference. An example is the game Axie Infinity, where the virtual currencies Axie Infinity Shard and Small Love Potion get rapidly converted to

cryptocurrency and then fiat by users (De Jesus et al., 2022). Thus, the reputation or Gresham's Law, '*by Tale*' (rather than the intrinsic value of the currencies called '*by Weight*') is in effect.

What shapes reputational preference? is a political question. As with the hospitality services, the issuer has a lot of power here. For example, Neco tokens bought in the Neocracy can be purchased with fiat (Article III), but must be held for a certain amount of time as Neco tokens before any back conversion to fiat, and Karma tokens (also in the Neocracy) cannot be redeemed nor transferred. Yet the users can change the restrictive Neocracy rules via the Collexa voting process within certain boundaries as set by the currency issuer. When an issuer initiates a CC, they are carrying out a policy intervention to change the praxis of a community. When change is done by fiat, issuers can mandate the use of the fiat, e.g., that taxes must be paid in it, or wages calculated in it, or historically, upon refusal of Kublai Khan's paper money – execution (Sparavigna, 2014).

When the issuer lacks the power to mandate usage, they can encourage adoption by using the carrot and the stick. The carrot might be special access to a service or product, which only made available with that money. Many trust or governance tokens called utility tokens (Balbo et al., 2020) in games incentivize desired behavior, e.g., Off, which is a multiplayer game which reveals a code to decode a text via private tokens when sufficient are sold and released. The reason in Off's case is so that cooperative rather than competitive behavior is required (Frost & Friend, 2021).

The stick might be restrictions on where a money can be used, e.g., the *sysmä* was only available for businesses registered in *sysmä* – which was supposed to encourage new businesses to register in *Sysmä*. Restrictions may be flexible, e.g., the Bristol Pound CIC strategically decided to allow Bristol Pounds to be used by the local bus company. Their money thus acted as a special purpose money for political and not for technical, nor legal reasons. CC use thus touches on power and privilege. One conception is, that everything is allowed, which is not forbidden; the counterview is, that only what is explicitly permitted, is allowed⁸².

What has happened with many money-related practices in the past, is that standardization and institutionalization take what works and begin to exclude other possibilities. An example is the presence of private mints and money production in the USA. The production functions were taken over by the federal state. Thus, central control makes it hard to introduce alternative conceptions, as was attempted with E-Gold (L. White, 2014). Here a deliberate spurning, due to political convictions by the proprietor led to his criminal conviction and the removal of E-Gold from the market. A close reading of White's case study reveals that E-Gold could run if the hegemonic system ways are complied with.

Using an alternative monetary system is different from using fiat. The distribution of wealth is affected, with an endogenous rather than an exogenous

⁸² Permission may be via enabling legislation, social norms, or cultural shift. Jurisprudence and regulations can severely limit in their framing and incommensurability if these are at variance, e.g., the cryptocurrency space in Europe.

economy stimulated. This effect, in theory, should stimulate the local community, and did so with some successful CCs. The Eusko (Edme-Sanjurjo et al., 2020), while it can be questioned as to just how much it is really a separate system – being backed by fiat—has helped to strengthen a Basque identity and an alternative conception within the community of use. The Bristol Pound and various other transition town⁸³ pounds aimed to shape an alternative identity too (Petz & Finch, 2023). The Bristol Pound had some success in creating a local, or in Bristol’s case, Bristolian consciousness, which manifested in behavioral change within the community of use after the pound’s introduction. Bristol Pay CIC (the successor to Bristol Pound CIC) worked on ideas to capitalize on this behavioral shift as a purposive organization (Gartenberg, 2022).

Thus, we have “money with a purpose [aiming to deliver] social, economic and environmental outcomes” (Bindewald & Steed, 2015). With Bristol Pay, the aim is to generate a tokenomics which is complementary to the fiat-dominated market economy (Petz & Finch, 2023; Finch, 2022). Bristol Pay explicitly aims at transformation, with active citizen participation, for an ecosocial society. In the case of VTS points, “a good life” (i.e., Plato’s (1994) eudaimonia) is aimed at⁸⁴. The *sysmä* was to fight rural decline. Here we see CCs applied to deal with the challenges and pressures in their societies. They are introduced in reaction to inequality, consumption patterns, undesirable lifestyles, a lack of sustainable employment, social exclusion, and due to the pressures of climate-induced societal change – or they could be.

Why not just use the euro / dollar / pound, et cetera? What is the point of a CC rather than a fiat? Fiat could be used to achieve many of the aims of CCs. For example, Belmonte et al. (2021) indicated that everything they did so far with the REC local virtual currency in Barcelona could be done with the euro alone. Other methods could be used. Helicopter money, vouchers, *grants*, fiscal transfers, subsidies, or targeted assistance can work and do work. These are different liquidity injection strategies. Targeting liquidity based on the network structure can be extremely powerful.

As marketing tools, CCs are valuable. They can be used for empowerment and the creation of new money relations. The confusion resulting from trying to use a fiat currency with a new relation prompts an alternative where the money relations can be controlled. There is commonly an anti-money approach held by people with strong political views that can be mollified by using “our own money” and not the “government’s.”

You can play golf with only one golf club, but it is not a good idea. Likewise, with only one currency, we are too limited. Instead, we need diverse currencies

⁸³ See, Aiken (2012); Henfrey & Giangrande (2017) for details on the transition movement and transition towns.

⁸⁴ While “a good life” can be traced to Plato’s concept (Aristotle and Socrates also discussed eudaimonia), in Finland the semantics include wider conceptions. Cf. Kettunen (2019:14–17) on “Hyvinvointi as a word used to describe positive conditions in the life of an individual, a family, a community or a nation” though “it did not refer to any action or actorness, and it was not used in compound words as an attribute of any particular activities or institutions”, “onnivallinto (the state of happiness)” and “onnilaitokset (institutions of happiness)” for welfare, well-being, and happiness considerations.

that are appropriate for different usage cases. As varied CCs are technically and legally possible, it is important to think about where and how they are politically desirable. Desirability rests on conceptions of systems of economics. To operate microeconomic systems differently from macroeconomic systems is made more possible with a CC, at least to investigate the utopian potential (see Article III) and consider where or how a policy intervention might be adapted.

2.7 Currency Systems

It is not right to think of a spectrum of no money systems, no cash money systems, barter economies, economies of surplus, modern cash money, or even e-money systems. They are distinct functional concepts in themselves. Hybridity rather than exclusivity is a better way to think about where we might find these currency systems existing in a milieu. How a society functions, under these broad labels, can vary depending on the influence of philosophical and societal factors.

While we should think on an area basis, that is a network of villages (as discussed in 1.2 Conceptual Framework), we can explore such systems by a community of use (see Articles I, II, and III). There are various terms for communities: a community of place (e.g., a city, hospital); a community of interest (e.g., members of a chess club, farmers); and thematically, a community of interest is the same as a community of use, but it is not quite.

It can be claimed that a use is an interest. What happens when a technology is used differently by different users (with different interests), and they intersect? An example is a mobile phone. I never play games on my phone. I use it for calling, but my son never calls; he only plays games on the phone. We have different interests. I do not belong to the gaming community of interest. We both belong to the phone community of use. Our relations share this commonality.

The same applies to community currencies, with different aspects of money having different interests, based on the functions of money varying between users. Money is polymorphous; for example, few people use community currencies as a long-term store of value. They use them for other purposes, e.g., community-building, solidarity-strengthening, counter-hegemonic actions, speculation, etc. So, a community of use is more appropriate.

The community of use can be defined as the intersection of a theme (interest) and place (where a currency is used). The New Paradigm indicates that aspects of place are no longer operating in the way they were (see below, Article IV, and 3.3 From Rural Studies to the New Paradigm). An urban area that interacts to buy chanterelle mushrooms or other wild forest products no longer gets them only from nearby forests, but world-wide. I see this change starkly in the Nordic countries, with the globalized berry industry (Yimprasert, 2010) providing blueberries (which grow abundantly in Finland) to the Finnish domestic food industry. Berries come from Germany, and even Canada. There are many examples of such rural thematic connections, rather than place-based ones.

Can the global level apply to community currencies? We can see with fiat currencies a history of globalized currency that stretches from the Spanish doubloons in the Golden Age of Piracy (Conlin, 2009; Narsey, 2016), to the mighty US\$ today. More recently, we see it with Bitcoin and other cryptocurrencies. It is argued worldwide interest only happens via speculation and that cryptos are really a frothiness proxy for the US\$ or other fiat currency (see Majer & Barbosa (2022) for more on frothiness). As cryptos operate globally, they are not tied to place, so if cryptos are considered a community currency, then community currencies can be used at the global level.

Nevertheless, most community currencies were started in a location as a place-based tool. They are found in a community of use, which is closely linked to a locale, rather than no-place thematic relations such as within an internet-based community, e.g., Atlas Bucks used in the Atlas Earth metaverse (Atlas, Inc., 2023). They are local currencies, not merely interest-based ones. They act as complementary currencies. When we speak of them as defined by a community of use, the commonalities of those communities are largely place-based and not merely thematic.

BookMooch (Article II) is an example where place-based aspects are transcended⁸⁵, i.e., in a BookMooch member's country it costs only 1 point to get a book, and from outside the country 3 are required – so the nation-state becomes the defining place. Functionally, people accept that books cost this much to get, based on costs decided by the postal systems, and not geographical proximity, e.g., it costs 3 points in Tallinn to Mooch a book from Riga, only 1 point to Mooch a book in Orlando from Anchorage.

Macro- and micro-economic lenses can be looked through to see the effects of community currencies. Generally, community currencies were considered only relevant to microeconomics, as they do not operate at a large enough scale to be relevant to macroeconomic dynamics. Relevance to economic scale is changing with the use of digital currencies created by game companies, e.g., Linden Dollars (Linden, 2021), Robux (Gray & Thomsen, 2021; Wang et al., 2022), and Meta / Facebook's attempts to make online currencies (Chiu et al., 2021; Pilkington, 2019). Cryptocurrencies have this potential (see Article III).

Mainstream economics deals with more than just money and finance (at least in historical academic writings) as its purview, as it has developed from political economy, and so implicit are political perspectives, with a wide range of views and applications expected. Heterodox economics and Austrian economics (neither are mainstream) are part of that tradition rather than aberrations.

Beyond these approaches, we can think at a more instrumental level as to how CCs relate to other political-economic systems re conceptions of the role money plays in our social relations. There are historical considerations here too.

⁸⁵ BookMooch designed a preferential treatment encouraging locality (on a nation-state basis) with fewer points needing to be spent to get a book locally, although parochialism is countered by more points being earned for sending a book further away. The international postal union had rated printed matter at lower postage rates in many countries, but now that rating is gone, a limitation arises in terms of postal rates – but this is not internal to the BookMooch system.

The fathers⁸⁶ of current economic thought often considered social aspects integral to their economic writings, e.g., Adam Smith, and many early social scientists can be considered economists too, e.g., Karl Marx. In Joseph Schumpeter's (2010 [1943]:38) words, "We have seen how in the Marxian argument sociology and economics pervade each other. In intent, and to some degree also in actual practice, they are one. All the major concepts and propositions are hence both economic and sociological and carry the same meaning on both planes—if, from our standpoint, we may still speak of two planes of argument."

Anthropologists provide another strand of thought on money relations and society. A similar exploration of thinkers from diverse cultures could be undertaken to that taken above toward gendered contributions. See Zhang & Wu (2021) for how Western framing is problematic when considering a disciplinary label rather than what is actually practiced. Despite this disciplinary labeling issue, anthropologists deal with human cultural organization. Humanity lived for most of its existence without money, though within cultural organization and social relations of various kinds. More recently people have used near money much more than they historically did. Consequently, present-day relations in my anthropological ontology fall under three main conceptualizations:

2.7.1 No Money Economy

In this conceptualization community currencies are a bridge to reach the state of a non-monetary economy. The Neocracy aims to get rid of money (Article III). CCs are frequently raised by those confronted with questions over how they will achieve a non-money-based economy, e.g., the Facebook group Moneyless Society; the Facebook group P2P/Commons Politics and Policy. Often proponents of a non-monetary system have not sufficiently thought about what money is, e.g. Eaton (2023). Commonly proponents hold a conception of an economy as a gift economy, e.g. Eisenstein (2011).

There are non-money economies that can function; planned economies, for example, can allow resources to be distributed without using money. It is hard to see how some system of account would not be required. On a small scale, a moneyless economy is certainly possible, e.g., at the household level, where there are rarely money relations exercised between relatives. Household money relations vary between cultures. In Finland, many couples record all their

⁸⁶ I wrote fathers as they were mostly men, though there were women, e.g., Gilman (1998 [1898]); Schwartz (Friedman & Schwartz, 1963); and other less recognized women who may be eclipsed by the prejudices and biases of their era. This occlusion endures to our own time, e.g., Harriet Taylor Mill's as indicated in John Stuart Mill's autobiography (1873), is revealing in this respect. For a wider consideration of influential women in economic thought, see Cicarelli & Cicarelli (2004); Dimand et al. (2000). Of particular relevance to this thesis is the work of the Schumpeters. Both Joseph and Elizabeth, née Boody, were published academics. They married after Joseph had read Elizabeth's doctoral thesis (Boody, 1934). She worked on business cycles too, and was supportive of much of Joseph's work, e.g., editing his (1954) *History of Economic Analysis*. There is always a question in such partnerships as to how much is a mutualistic collaboration and how much one person is acting as a muse to inspire and support the thoughts of the other.

transactions in spreadsheets so that relations are made explicit. My experience in England is that most couples have joint bank accounts and treat all money as a common pool without recourse to explicit relations. In English culture an economy of surplus commonly results, where those with resources (which may be money, gardened vegetables, clothes, or time) share the resources for communal in-family or kin-network benefit.

At the tribal level, there are examples of economies of surplus that still have utility in modern contexts. Extended kin- and solidarity-based networks function largely without money, though a gift economy may result, e.g., in the Minčiu Sodas philosophers' network in which "Underlying the evolution of Minciu Sodas is an ethical assumption that one should give away everything they have" (Kulikauskas & Ellison-Bey, 2003). A lot of activism works without formal accounting or money being exchanged, by what is called solidarity. The sharing economy has examples of solidarity too, e.g., co-housing or transportation services (Menor-Campos et al., 2019). Some sharing services are not based on money, e.g., Hitchwiki (Vedernikov et al., 2016). Sharers can be described as tribal, e.g., neo-nomads are functionally tribal, yet without the same cultural heritage as more Indigenous tribes, e.g., the Pashtuns (Shams-ur-Rehman, 2015).

2.7.2 Near Money

The near money conception is where community currencies are most relevant. Here the Zelizer View (Zelizer, 2000) that money is polymorphous and can be earmarked for different purposes is more understandable. Community currencies can be restricted monies, only usable for certain things after conversion from vouchers, points, credits, or tokens into a more fungible alternative. There is control over when, who, and how a particular money is used. In many examples, money limitations are useful for specific purposes.

There are restrictions within the VTS points system (Article II), where the norms of the state mean a self-policing results, and the possibility for residents to trade points with each other is not made possible. In other cases, restrictions are built into the systems, so even radical challenging of the existing system is rendered impossible if using a dependent or dedicated technology, that does not contain the seeds of autonomy at its creation. We see muffling by the Bank of England as it refers to and prefers community currencies to be vouchers (Naqvi & Southgate, 2013). The French system, which creates the title of "les monnaies locales complémentaires [local complementary monies]" and integrates them into the financial and monetary code of law (Cauvet & Fabert, 2018) muffles too (Bureau CL1C, 2016). The Eusko (Edme-Sanjurjo et al., 2020) is a successful French CC example, yet it must be backed with fiat currency.

Tax systems prevent the creation of money or near money realizing the potential of true autonomy. The Finnish taxation on services and labor (Eskelinen, 2018); and import taxation on goods, require pricing in fiat currency (principally euro, though other currencies can be used in import declarations).

It is quite hard to adopt pure alternatives to the hegemony. The closest are some of the digital currencies found within computer games, earnable by playing

time or by swapping culturally created objects – called in-game currency, e.g., in *Shop Titans*. A minority of games have currencies that can or must be bought by fiat currency – called premium currencies, e.g., *Magic The Gathering: Arena*, where the in-game currency is called gold and the premium currency is called gems. Accounting-wise, premium currencies are readily convertible for tax or government purposes, e.g., Robux, Minecoins, or Linden Dollars all suffer this.

Game currencies mostly lack secure backing. They are not backed by reputation, nor another currency, nor tangible (nor even intangible) assets. They could be backed by tokenization or shares. Backing has not happened to any great extent. Initial Coin Offerings (ICOs)⁸⁷ were developing a culture of backing by investment as a financing mechanism akin to shares, but are now largely prevented by securities laws (Nolan et al., 2018).

2.7.3 Pluralistic Monetary Economics

Pluralism is the ultimate dream of many community currency advocates (Gómez, 2018). They want CCs, but not as complementary currencies in a subservient relationship with fiat currency. Rather, there is a view of the pluralities of currencies and currency flows, and so a plurality of monies is in tune with that concept. Like there are a variety of restaurants serving different cuisines with different operating cultures, without dominating each other, the same possibility of diversity for monies and community currencies exists.

Is pluralism realistic? In the EU there used to be more currencies than there currently are. Nordic countries have 5 different fiat currencies functioning with small populations under 10 million (less than London's population) using 4 of them. So it could happen. But one individual using all of them? Well, there is the Vivid super-app, which allows you to "Sort your finances with multiple accounts for different purposes. Manage your money easily: savings, travel money in other currencies, investments and much more. Create a pocket for any purpose for free!" (Vivid Money GmbH, 2022).

With Vivid different fiat currencies, or different cryptocurrencies can be held, and potentially by extension different community currencies. By diversified holding and trading electronically, while opting out of the money system run by central banks and national governments, or even supranational governments, it is possible. To step away from digital money and apps, it can be done, via brokering services between different hyperlocal systems or hyperlocal community currencies. Ruddick worked on local currencies interchanging successfully (Ussher et al., 2021). It is something SEEDs currency (Smitsman et

⁸⁷ ICO stands for Initial Coin Offering or Initial Currency Offering. ICOs work when an issuer of a coin or token sells them to investors for fiat currency or cryptocurrency. Those coins theoretically can be part of a money system in the developed product (ostensibly why the coins are issued, but see Olson (2022) for severe skepticism about what is promised and what is produced) and can be exchanged for utility (a utility token which provides a service), or goods, or future profits. Often, ICO funds were invested in speculative flows of cryptocurrencies. If the market price in terms of fiat of those crypto assets rose, the coins were profitably redeemed for other coins or crypto. As ICOs lacked regulation, securities laws, tax obligations, etc. could be avoided. With regulation, avoidances decrease.

al., 2022) is attempting, e.g., in Barichara, Colombia (Veselovschi, 2022) to generate activist social capital flows that will be linked with resource changes and transformations. See below, 7.1.3. Earth Regenerators and their financial ecology.

Alternative uses of community currencies are happening. They could happen in more places, such as clubs or groups of friends creating and using their own currencies. Berg & Zvereva (2020), demonstrated the practicality of creating a new money and system of use by playing the Russian money game Generator sdelok (Generator of Deals) with businesspeople.

3 RURAL BACKGROUND

Rural is an umbrella term with a complex set of connotations. To understand the rural context, I explain below some definitions of a rural area, radical agrarianism, and how we might apply the New Paradigm of rural development, rather than the old one of regional development. I end with my thoughts on rural economics.

3.1 Focusing on the Rural

Rural areas are where small communities predominate. They are places where there is an absence of cities and large towns. There is a dearth of clear conceptions around rurality that cross cultural and geographical boundaries. A rough way of identifying the rural is to consider a continuum from rural to urban:

(wilderness : to rurally isolated with off-the-grid, semi-permanent human presence : **to small farmsteads and hamlets : villages : to large villages and market towns** : to periurban areas : to urban large towns and cities : to a megalopolis)⁸⁸

It is the villages, large villages, and market towns, which are rural and relevant to this thesis. However, many small communities are found within even the largest urban areas. With the concept of cities as an interconnected network of urban villages (Neal, 2003), the findings may be applicable in these situations too.

The settlement schema only partially applies to Finland. Rather than consider a village or 'kylä' as a coherent center with the population living in close proximity, the Nordics use a 'taajama,' or population cluster, "a settlement of at least 200 inhabitants, where the distance between residential buildings is no more

⁸⁸ Here I have a set composed of environments in which humans live. I express this naïvely rather than in mathematical notation. I use : as a separator, as the settlements grade into each other in a continuum. A spectrum with one axis is questionable; better would be a matrix or wheel showing several factors of rurality, population, built environment, food security, etc.

than 200 meters” (Tarkoma, 2005). “Urban areas: The urban regions are taajamas with more than 15 000 residents” (Helminen et al., 2020:11), has been used since 2020.

The term village does not have an agreed international meaning. Hunt and Jenkins (2004:50) indicate that, “While farmhouses and cottages dot the landscape and hamlets straggle alongside lanes, the heart of almost any rural community is the village. Although tangible, the essence of the village is hard to define and regional variations contribute charm and ambiguity. Derived from the Latin *villaticus*, meaning an assemblage of dwellings outside, or pertaining to, a villa, the village is an institution that long predates the Domesday Book.”

In common English, when considering Sysmä (Article I), we might say that the outlying farms are not part of the Sysmä village or town. NomadTown (Article IV) is in a part of the municipal city of Joensuu, even though its existence there has a lot in common with an off-the-grid, semi-permanent human presence. VTS (Article II) operates across the whole of Tampere city.

After this dissection, we are left with difficulty defining what is urban if we only consider population density or the built environment. For me, an urban area loses its feeling and spirit of being tied to one place by its inhabitants, who no longer share a common localized existence. Instead, they have weaker ties and share a city-level conception, but functionally do not live in the same bubble. Cf. Hampton & Wellman (2018) for ideas around technology and “networked individualism” as an alternative to historical village communities.

Again, it can be asked: Where is the boundary? I offer an analogy from linguistics: a lect. When is a lect an idiolect, i.e., spoken by one person? When is it a dialect, i.e., spoken by a few people, but intelligible to speakers of a different dialect? When is the lect a full language, i.e., no longer mutually intelligible to speakers of another language?

The analogous process within settlement geography would be a loss of connection via the process of urbanization; from the rural via a stage of peri-urbanization, where some features of full autonomy are still present, prior to the process of urbanization whereby they are lost. For example, a Village Development Plan indicates a rural area, but once an area plan or city-wide plan is imposed from outside that local area then rurality is lost. A clearer conception and definition of rural remain to be made and agreed upon. Defining is even harder with virtual communities, that are not tied to one place at all.

Efforts have been made toward international consensus, for statistical purposes, in defining what a city or a rural area is. Most notably, the Cities in Europe definition from the EU and OECD (Dijkstra & Poelman, 2012) gives a useful methodology, i.e., the EU Nomenclature of Territorial Units for Statistics (NUTS) definitions which label NUTS level 3 areas as urban or rural (Eurostat, 2022). NUTS definitions are based on human population levels, which ignore the area of green space, agrarianism, peasant livelihoods, administrative areas, or other metrics that might be used to define rural areas. A different conception could be to organize thematic regions as imagined with living labs, e.g., agroecosystem living labs (McPhee et al., 2021).

3.2 Rural Renaissance, Resilience, Regeneration, & Renewal

The term 'agrarianism' shows inconsistent usage (Govan, 1964), yet is the closest to recapturing a rural right-on spirit. There are few contemporary examples of a successful radical agrarian perspective (Bell et al., 2010; Cungu & Swinnen, 1999; Akram-Lodhi et al., 2022; Wilbur, 2013; Woods, 2004). The semantic field around terms and their (unwanted) connotations is an issue long familiar to students of oppressed people, (see JanMohamed & Lloyd (1990) for a discussion). Such oppression affects the rural. Semantic connotations leave us with difficulties over using agrarianism or rural. I tend to use rural as a less loaded term. If it is taken as a given that the rural is preferable (as the urban was (Lawrence & Wilkinson, 2015) and is not (Jensen, 2006) ecologically sustainable) and should be invested in, what are we investing in? How do we achieve successful results? What are the realities? What is realizable?

All too often, the stereotypes of the rural are juxtaposed with those of the urban and colored by a successful city perspective. The psychological and socio-historical causes are beyond the scope of this thesis. Even so, there cannot be a simple return to what was before in a back-to-the-land utopian spirit (Bauman, 2017). Instead, we need a "New Paradigm" (see 3.3 below) for how to approach the rural. The same discourse issues that the patriarchy or hegemony imposed on women, racial minorities, animals, and many minority cultures raise, arise when considering the rural. There is not only a lack of terms, but a co-option of terms and perspectives which distort and misrepresent rural autonomy in their usage.

Examples are found in spatial planning. There are poor definitions of what a town or village is. See Carter (2013) for a way to classify small towns and thus villages. Commonly, villages are referred to as towns. For example, in Canada, the official planning names in French allow the terms 'village' and 'ville.' In English, village is often lost to 'town' via conflation of the two; cf. Bourne & Ley (1993); Statistics Canada (2017) for a discussion around area labeling. We read of "town and country planning" in England, which touches on policy questions "in terms of safeguarding existing patterns of development (particularly existing town centres)" (Cullingworth & Nadin, 2006:12). Often, towns and cities are conflated under the rubric of 'urban planning' (a result of planning developing from urban pressures on housing and services) – where are the rural settlements and perspectives in the semantic fields here?

Looking further, we see "regional planning" and not "rural planning" (Frank & Reiss, 2014) favored, or the more neutral "spatial planning" (Gallent & Shaw, 2007). These terms contain different conceptualizations of relationships between constituent elements. Is rural renewal the same as urban renewal? No. Urban renewal is commonly has a quite different nuance, akin to gentrification or renovation of existing functions of a district or area (Mehdipanah et al., 2018). In contrast, rural renewal is considered (if we can even find it) as a much more radical reshaping and reinvention that penetrates more deeply into the community and is akin to urban regeneration in its scope and depth (Shand, 2016).

When we look at macroeconomic policy framing and praxis, we see embedded cultural aspects that shape how policymakers act. These aspects are a consequence of a dependency on growth rather than steady-state economics. The growth-is-good fixation by policymakers (influenced by a partial understanding by economists) has damaged the rural in attempts to integrate it into a unified, one-size-fits-all economy and society. See Douthwaite (1996a) for perspectives on these cultural aspects, macroeconomic actions, and effects. Just as immigrants who are quite happy being integrated are forever being oppressed and othered with a tacit (and often not so tacit) expectation they will assimilate, rural areas are seen as economically dependent on an urban area. Policy and praxis try to bring about an integrating dependency that sees rural areas serving, as slaves rather than in a parent-child or even in an equal partnership, the urban centers.

The conceptions here are seen most starkly in Christaller's Central Place Theory (Christaller, 1933); cf. Thünen (1826) and Weber & Friedrich (1929) for the theoretical antecedents of the theory. Here a clear hierarchy, as loathsome as feudalism, relegates rural areas as hinterlands to feed into market towns, which are subservient to cities and ultimately a capital city within the nation-state. The whole rotten edifice is predicated on a human settlement dynamic that pays scant regard to the natural world. Rather than a circular economy that is localized, there is a distance economy of extraction and environmental alienation.

There are alternative ways to think of inhabitant in the landscape relationships. The most radical alternative is to go away from permanent settlements of any kind. Nomadism, as found in the largest land empire ever⁸⁹; hunter-gathering societies, as seen in the Kalahari (Liebenberg, 2021), are viable human niches. A partial proposal that works for humans is semi-nomadic shifting cultures, e.g., Natufians (Bar-Yosef & Valla, 2013), who lived from foraging and incipient agriculture. There are advocates for these niches in Finland who have explored their viability (Nordlund, 2008; Rahjola, 2011).

Slightly less extreme would be to remove the cities and their influence. Pol Pot, under his genocidal peasant-dominated régime said, "Don't use money, don't let the people live in the cities" and carried out a forced evacuation. (Kiernan, 2008:112). Removal could be done by gradual abandonment, as explored in the dystopian novel *Shades of Grey* (Fforde, 2009). Such a process occurred, or perhaps it was more of a transformation, during the decline of the Roman Empire in Britain (Oosthuizen, 2019). Most see de-urbanization as losing valuables we want to keep.

If we want settlements, we can think of how they interact. When looking at computing, rather than a mainframe with dumb terminals, think of a network of computers. Networked computing is very powerful and effective and can exist without a mainframe or even a central data center. Such peer-to-peer networking is argued to be the future of interactions on Earth, mediated by technology (Kostakis & Bauwens, 2014). Mutual dependency is viable for village settlements as networked villages manifesting the global village, as seen in Austria (see

⁸⁹ The Mongol Empire, read for details, *The Mongol Art of War: Chingiss Khan and the Mongol Military System* by Timothy May (2007) from Pen & Sword Books Ltd.

Article IV). Villages could network with other villages (Steinwender et al., 2020). They can network with urban areas and urban areas can endure (Nahrada, 2022).

What is in focus here is the rural. There is a viable example of a functioning networked settlement culture, the shtetl (Zborowski & Herzog, 1962). Via shtetl settlement, regional and family-based networks functioned once a critical mass was achieved. Oppressive urbanism (cf. Lawrence & Wilkinson (2015) for reports on how upstarting is a feature of urbanization that is not bioregionally sustainable), (and other oppression) meant shtetls were often designated as towns and not villages.

There is a question over what makes a viable village (Kassow, 2010). To this purpose, resurrecting the shtetl as local centers of learned culture based on artisanal entrepreneurship is a viable alternative. Shtetls could be inclusive of the knowledge economy we live in, possibly as smart shtetls. Resurrection would accommodate the transformation of agrarian existence, which historically required many landworkers, to a rurality with an absence of land-based incomes in our contemporary post-productivist world. This innovative settlement model is a renaissance of a tradition that exists in living memory, not a brand-new idea.

There is a desire to reneate with the global village concept and thematic villages (see Article IV). This potential future, if implementation serves to carry out regeneration under the pressures of climate change, is viable. What do we mean by regeneration? Regeneration is a facet of resilience. It is by nature transformative to a better fit within the existing, or soon-to-be existing cultural niche. It may be seen as an evolution within the existing socio-environmental conditions. These conditions can change as cultures evolve, new cultural scaffolding (Caporaal et al., 2014) is erected, or as old ways of existing disappear due to the subtle changes in culture that happen in all cultures.

Regeneration can update old traditions and create new ones. Within monetary relations, network effects can manifest as a new relationship is created. Here we can see a deep adaptation, discussed in Article IV, that makes use of the triquetra of resilience, relinquishment, and restoration. The deep adaptation process has a necessary decolonization of the mind (Haavisto et al., 2021) as we feed our heads with new ways of being. Regeneration is an action research process that is transdisciplinary and greatly requires design science.

I used design science as a scientist with the SUCH network and my milieu, covered in Article IV. Specifically, I ran a Wheel of Resilience Workshop at the Pixelache #BURN___ festival, where I co-created, with activist dialogs around resilience in the bioregion, Wheels of Resilience for Individuals, Communities, and Society. The wheels are a tool to identify strengths and weaknesses, which, via analysis, lead to policies and action for forward-resilience.

3.3 From Rural Studies to the New Paradigm

Rural life has been approached in diverse ways (see 3.1 above). Recently, the main paradigm applied to the rural environment in Europe was one of regional

development. The legacy of the regionalist paradigm is still found in many places and perspectives. It is found in the names, and thus behavior, of agencies charged with carrying out regional development. Much as market research is directed at achieving a marketable product or service, so regional development is targeted at a certain conception of the rural and thus what research on it is for.

This targeting was mostly transformational, with the idea the rural is a problem to be solved, a backward region to be developed (as if development is needed and ruralities are somehow not developed), or somehow transitioned to be modern. Transformation is conceived as a long, dynamic process running from the commons to enclosure to productivism and now post-productivism macro-economic considerations of service economic thinking.

Such framing has affected rural studies approaches. Relevant higher education courses speak of NUTS Regions (Eurostat, 2022), for example, and how they can be used for “improving” (Zaucha et al., 2014:246) aspects within regions. A European Union concept of regions at levels of development and regionalization is behind this divisive way of thinking across spatial areas and is called “policy territorialization” (ibid.:247) or “policies with a spatial dimension” (ibid.:247). Such territorialization can be contrasted with the idea of a thematic arrangement called “organizational proximity,” where a community of interest, rather than place is more significant (Copus, 2013).

The disciplinary perspective, which narrowly follows territorialization, can be found in the Collège d’Europe, which helps to educate the thinking of future civil servants of the EU. The Collège was founded to influence the thinking and practices of the EU fonctionnaires (Schnabel, 1998). To gain a wider multidisciplinary perspective, we must look from the gaps in between the pillars so erected. Important questions are: Under what paradigm can research be conducted and seen? What falls outside and what is included? How can it be made relevant and comprehensible in a coherent way (as a discipline might be)? And why do it?

It is rare to see the rural studied as a way of learning how to transform or develop the urban areas that are considered their hinterland (by the conventional approach). It is commonly the opposite, with the rural considered deficient somehow—not civilized, a raw and unfashioned rusticism beholden to the urbane urban—if only it knew enough to aspire to its own betterment!

There is a proposition for turning things around, not as far as the rural civilizing the city, but more the rural acting in an autonomous way, which could challenge the dominant perspective of urban territorialization first. The level of autarky varies from complete, under a comprehensive villagization process, to a more dependent conception, with local, regional, and supra-regional spheres of influence acting in concert with distinct roles for the city, small towns, and villages. Nevertheless, a kind of solidarity peer-to-peer culture of its own can operate between settlements of comparable category, rather than hierarchically.

An autarkic turn was proposed by the Agricultural and Rural Convention (ARC) (ARC, 2010) and championed by the European Council for the Village and Small Town (ECOVAST) (Turner et al., 2008) and Michael Dower (2013) and

called “the New Paradigm” and, by implication ‘rural development’ in contrast to ‘regional development’. Professor Dower was behind the European Rural Parliament, where issues of import for rural communities were discussed. The rural paradigm is explored in Article IV. The involvement of Dower’s input into policy framing was action research, fulfilling one of the functions of universities, that is, dissemination and impact of knowledge flowing into society.

Table 1 Summary of New & Old Paradigms Contrasted

New Paradigm “Rural Development”	Old Paradigm “Regional Development”
<ul style="list-style-type: none"> • Networked Rurality • Villagization of urban centers • Flows are distributed between varied nodes • Thematic networks are spatially dispersed and synergistic / complementary • Finance arises from different distributed sources • Policy creates enabling environment for diverse local adaptations • Adaptable planning • Delegated responsibility • Participative communitarianism / Multiagency collaboration • Endogenous economics in the village • Ecological sustainability explicit • Cultural heritage cherished • Ecology of local currencies 	<ul style="list-style-type: none"> • Growth-pole Theory • “City” Central place as a strong centre • Flows are to and from the centre • Master-slave / Parent-child relationship • Finance arises from central taxation / grants • Policy is rigidly decided centrally for regional implementation • Fixed planning • Command and control governance • Representative democracy / Centralized control • Exogenous economics in the village as part of a regional system • Environmental concerns externalized • Traditions in need of modernization • Regiogeld

To grasp the implications of this developmental discourse, it is useful to know the old paradigm. To understand Dower’s New Paradigm, see Table 1: Summary of New & Old Paradigms Contrasted. Over the last 30 years, many people discoursed about how the internet is transformative (Fisher et al., 2018) or how Marxism being abandoned or reframed changes things (Derrida, 1993; Sprinker, 1999), which makes no sense to those like me who have had no experience nor awareness of the thinking before these changes (cf. Latour & Schultz (2022) for an attempt to introduce a class analysis with contemporary ecological framing). These claims only make sense to those who experienced the old thinking and now need to think differently. It is like explaining the culture around vinyl record stores to the digitally literate generation Z during the COVID-19 pandemic – as I did with my daughter. The same situation applies for understanding the old and new paradigms for rural regeneration.

The old rural paradigm is based on the work of Alfred Weber (Weber & Friedrich, 1929), and Walter Christaller (van Meeteren & Poorthuis, 2018). Their

theoretical landscape has led to a self-fulfilling prophecy by its implementation⁹⁰. With Central Place Theory (the wellspring of the old paradigm), the idea is that there is a hierarchy of settlements—a central place, which is a big town or city that has smaller market towns feeding into it, and then market towns with villages feeding into them.

The seductive Central Place Theory incites planning for various purposes to carry out public policy by means of growth poles (Parr, 2016). The poles are the city or arise via supporting the market towns (Copus, 2013). Rural-urban interactions are predicated on villages and market towns serving the cities. Managerial and administrative control of resources for these purposes is in the central places. These social capital resources should (according to the Growth-pole Theory) both diffuse from the centers and be accessed by their hinterlands and peripheries. These hinterlands are based on a productive (agricultural) economy providing raw materials, food, and basic services (including waste disposal) in return. It is believed that innovation and wealth are created in the cities, and that economic and diffusive flows come from the cities, and not the other way around.

Geographical proximity is important to the old paradigm, as locational factors embedded in tacit knowledge, rather than distributed knowledge, are thought to hold sway over what is possible. Villages trade with their market towns, and then those market towns with nearby cities in a proximity hierarchy. The peri-urban (Jaquinta & Drescher, 2000), and the rurally isolated are included in this conception where they lose autonomy and are tied into arrangements with their neighbors. Thematic networking is a junior player to geographical proximity networking rather than in a web that transcends the limitations of geography. Flows are different between the paradigms.

The New Paradigm has grown out / up from the policy landscape based on the old one. Many practitioners, policy statements, funding decisions, and even agencies or businesses are based on the old way of thinking. It is thus easy to cherry-pick data to justify and argue that the old paradigm is correct or even desirable. Therefore, it is necessary to take a multidisciplinary perspective (economic changes with globalization; spatial rearrangement with economic geography, and social sciences in how community dynamics are altered) to see the paradigm shift. It is necessary to take a perspective not from the Central Place of large cities and legacy institutions, but from the rural transformed — as it exists and is manifesting into being.

Like a river that floods, the new course cannot be seen until after the change. We can figure out the potential cartography by considering relevant thinkers. Jensen (2006) argues in *Endgame* that cities are not sustainable, they really were not that sustainable in the past, and thus we must build a rurally-based civilization⁹¹. For Jensen, a New Paradigm of rural development is not one of

⁹⁰ This is much as the policy-making process (another theory) led to a self-fulfilling prophecy in Australia, where the theory, supposedly based on practice (Krott, 2005), was institutionalized, and implemented to some extent, rather than a true representation of how policy is naturally created. It seems political bodies are vulnerable to academic inventions.

⁹¹ See Scott (2017) for questions about the development of our settlement-based civilization.

building cohesion for an R-U relationship (rural-urban dyad); it is a stepping-stone to doing away with the cities altogether.

How could that look? Joe Brewer, as an integral thinker, accepts the premise of rurally- and not urban-based existence:

Urban development has only been possible during the Holocene anyway. It is important to remember this fact as we talk about developmental entrenchment. Many of the societal structures we take for granted would not have been possible without this extended period of stable warm climate. The developmental structures of cities have depended upon the stability of rivers, weather patterns, food production, and transport across the regions surrounding them as they connect to other cities. A great deal of developmental scaffolding has gone into the formation of empires and civilizations around cities and their circulatory flows. When we dive deep into regenerative thinking, even this becomes open for reconsideration. Now that the Holocene is over, what if cities are no longer possible to sustain in any location? Might it be the case that they were never sustainable? As we learn how to decolonize our minds, topics like this become essential to explore. (draft of Brewer, 2021).

Thus, he splits with Kate Raworth over this very point of rural or urban futurism. For Kate, doughnut economics within planetary boundaries, and thereby integration of the social element, is possible:

Hello. I'm Kate Raworth, and I want to introduce you to the one Doughnut that actually turns out to be good for us, and good for cities that want to thrive in the 21st century...

So, what if we could take this global concept of the Doughnut and bring it down to the scale that policy-making actually happens at, the national level or the city level? And that's exactly what we've been doing at Doughnut Economics Action Lab. Together with Biomimicry 3.8, C40 Cities, and Circle Economy, we've downscaled the Doughnut to the scale of the city. And we invite every visionary 21st century city to ask itself this question. How can your city become a home to thriving people in a thriving place, while respecting the well-being of all people, and the health of the whole planet? And we can take that question and dive into its four lenses that make up the City Portrait. So first: What would it mean for the people of your city to thrive based on their own values and vision? What does a good life look like in terms of community housing healthcare education transport political voice and social equality? And, how far is your city today from meeting its own people's vision of thriving? Then ask, What would it mean for your city to truly belong within its natural habitat? What if your city were as generous and resilient as the wildland next door - be it a forest savannah or a wetland? How could your city's landscapes and greenscape, pavements, and rooftops be designed to sequester as much carbon dioxide as the forest next door? To store as much groundwater after a storm, to house as much biodiversity, or to cool as much air as the forest does from the treetops to the forest floor? Because the more that your city can match the generosity of the living world in which it's embedded, the more it can become resilient and thriving as a place to live. (Raworth, 2020:m3.02-5.00).

Kate takes a more realpolitik position. Joe's fundamental view holds that Kate's position requires an imposition that cannot durably work in the real world. Raworth thinks cities can be saved / transformed; Brewer that they must be abandoned. Rather than rescuing the city, Joe is trying to set us on a path of reclamation or salvage from the wrecks of civilization via bioregional and rural⁹² Earth regeneration.

⁹² See Snyder (2022), where both accept they are on different paths. For Kate, her models are less-than-perfect, but practical action must be taken (Fanning, A., Raworth, K., & Krestyani-nova, O., 2022). Both Joe and Kate are activists executing impactful activities of transition.

Jem Bendell invents a Deep Adaptation agenda, as a process where reclamation might take place (see Article IV). Which means letting go of much of what we have, while constructing an innovative arrangement from what we had. Rupert Read supports him in that endeavor with ideas from Green politics on where steps might be taken, though as of writing, these are not concrete. Their thoughts can be contrasted (Bendell & Read, 2021; Brewer, 2021; Raworth, 2017).

What are we collectively building? What emergent properties are we manifesting? Weaving something new seems to stray from the narrow focus of community currencies, yet currencies are flows representing the social world in the abstract. There is a flow, a current-see of knowledge (with other flows) operating in our milieu. When the social world is a rural one (as in my futuristic forward-resilient conception), how is rural policy shaped around this aim? And who will live in it?

We are moving from a post-modern disciplinary perspective of specialist experts in academia with very narrow foci who feed into the governance structures. We are changing to an integral approach where education is not only for experts, but for those in the community too, thus empowering wider participation with a multidisciplinary perspective of co-governance.

3.4 Economics for a Rural-based Existence

How might an economic system operate for rural areas? If we look into the past, for some empirical evidence to see how rural economies operated, we see a long tradition of feudalism in many places⁹³. In Europe, feudalism gave way to mercantilism. In the modern era, economic activity has transformed rural areas from being local concerns to being concerned with the global.

With the scale change, rural economies shifted from productivist agrarian existences to those where the rural areas are “left behind” or lag. Left behind is a relative perspective, as it is left behind⁹⁴ from the view of mainstream neoliberal-influenced economics. The left-over practices still operating in many rural areas can be called peasant economics. I do not conceive of either peasant economics, with its gaps, nor productivist agrarianism as the last word on how an economic system might function in a rural area.

⁹³ I view feudalism as: fealty from fixed-place laborers to a ruling aristocracy. This situation existed in much of Asia, Europe, parts of Africa, and South America. Smith (1904 [1788]) and Marx seem to hold this conception (Cheyette, 2016 [2010]). The term feudalism is problematic due to the assumptions of progress, stages of development, and mistaken views about the details in praxis (*ibid.*).

⁹⁴ “ It should be highlighted that more than 40% of the respondents of the OPC [Online Public Consultation] living in rural areas feel left behind by society; the share is higher among citizens living in remote rural areas. The reasons for this perception from rural citizens refer to: deteriorated infrastructure and services; lack of economic opportunities; no consideration of specific needs in political decision-making” (EC, 2021).

3.4.1 Economic circularity

Rural areas can function with a more circular economy. Many places in Italy have circular economies. The growth of the Slow Food movement (Miele & Murdoch, 2002) is an Italian example of an endeavor to counter the predations of the modern linear economy. As a rurally-focused living tradition it provides an alternative model to globalized fast food⁹⁵. The conclusion that Slow Food is in direct opposition to *McDonaldization* (Atkinson, 2015) can be drawn by looking at the movement's foundation, which came around the time a McDonald's burger bar was opened in Rome (Rayman, 2014).

Slow Food fits well with organic farming and artisanal production methods as opposed to factory farming and *Taylorism* (Taylor, 2012 [1911]). Slow Food is embedded in the local culture and valorizes, through the concept of *terroir*, the relationships in the region between people and place. Terroir developed from the influence of French rural culture, and encompasses localism, traditional practices, and often uniqueness. The EU recognizes terroir through schemes that award the quality labels PDO, PGI, and TSG⁹⁶ (Grunert & Aachmann, 2016) for food products. Other products too could be so assured, labeled, and thus valorized.

Timeless traditions are valued in these relationships. Though not really timeless (all traditions started somewhen), they have a level of authenticity (Petz & Haas, 2017b). They are true to the arc of culture and practices that the people of those regions engage in, even if the constituent elements vary over time.

As traditions, they must be sustainable, otherwise, they would not endure long enough to become a tradition. Thus, we can find a level of resilience embedded in their praxes, without falling into romanticism. Ecological sustainability is a prerequisite in rural areas, but their economic sustainability has often been threatened and undermined by mainstream economic practices (Douthwaite, 1996a). With more awareness of ecological sustainability, new traditions in synergy with the environment can be brought to bear; however, an economic underpinning is needed too.

A circular economy operates in Prato in the textile and clothing sector. There, virgin raw materials are mixed with discarded household textiles and (chemically and mechanically) recycled clothing to be repurposed as ingredients for making products, i.e., clothing and, to a lesser extent, materials (e.g., wipes, packing) for industry (Ronchi & Nepi, 2019). Circular economic thinking treats discarded textiles and scrap materials as resources, not waste. The mix of inputs (in Prato's case, industrial scrap textiles, discarded clothing, and some new materials) makes fresh materials, which can be used according to the waste hierarchy (EC, 2008). Legislation is slowly adopting the idea that a used item does

⁹⁵ Which brings food from faraway farms to central hubs, which then take it back to the locations of origin to be sold in supermarkets as part of the globalized logistics chains. To facilitate this, standardization is applied, which results in food with a lower nutritional quality, poorer taste, and higher costs in embedded carbon and environmental damage.

⁹⁶ PDO (Protected designation of origin), PGI (Protected geographical indication), and TSG (Traditional speciality guaranteed), source: https://agriculture.ec.europa.eu/farming/geographical-indications-and-quality-schemes/geographical-indications-and-quality-schemes-explained_en.

not automatically mean further use is impossible and that all discarded items fall into a single category of waste.

Current labeling (B3030) for shipments, under the Basel Convention (SBC, 2020) regards used textiles as waste, yet new practices are separating, what can better be labeled as discarded textiles, from domestic and commercial waste streams. See Wagner et al. (2022) for details about the labeling problem. A shrinking fraction of ‘waste’ remains. The remnant is regarded as ‘energy waste’ that, for now, will be incinerated, but may be eliminated in its entirety over time. In contrast to the artisanal Slow Food circularity, the nature of this industrial circular economy operates at a larger scale.

When considering CCs and community economic tools, we should consider the economies of scale and how they facilitate local circularity or at least operate within a grander circular economy. Circularity is not dependent on a credit-based general equilibrium model. However, circular flows are related to the interplay of different sectors, natural endowments, and human population demographics. Consideration of what is circling and where helps us think about different scales and modes of circularity. Awareness of the dynamics and elements within local economies facilitates us to apply tools, such as a decision support system (DSS)⁹⁷, for interventions to support the great transition, e.g., Graymore et al, 2009.

Macroeconomic perspectives envision massive movements, or trade flows, of resources and capital. The flows drag along with them the rural small streams, and all too easily inundate and flood the rural areas, or conversely, draw away all the resources and varied capitals in an extractive, exploitative economy – the great big sucking sound. On a community economics scale, areas are considered relevant under a more complex theory; the theory of circular cumulative causation (Lee, 2009; Berger, 2008; Myrdal, 1957).

I am sympathetic to Myrdal’s conception that in a community there is an interplay of relevant factors interacting to give an emergent property, or strictly a dynamic. This dynamic may be one of improvement as a virtuous circle or a worsening situation as a vicious circle.

Here it is not an amount, a critical figure in the way of general equilibrium theory that is reached, which then brings a static, stable system. Rather, it is the dynamic interplay between different flows that interacts in balance to engender a new situation from which a new critical figure might be posited, which, if the dynamic is allowed to run, iterates to another critical figure.

In such a way, current-sees could be employed to monitor a range of flows. A circular economic approach would let us see if we have the right, balanced flows over production, usage, and movement of goods that are in tune with natural cycles, happiness economics, and bioregional sustainability. Through

⁹⁷ One DSS was the Wheels of Resilience I developed as part of the Pixelache #BURN thematic premise, which aimed “to connect conceptions and experience of psychological, social and environmental collapse, and how we can survive it” (Maher, 2020). The design process involved computer-based simulation, collaborative workshops, graphical output, and scientific research.

direct interventions to change the critical figure, we could create (propagate)⁹⁸ a virtuous new system in a rural area.

Historically, we can see some efforts to achieve the virtuous circle, for example, the Wörgl forest community in Austria (Schwartz, 1951). In Wörgl, the Bürgermeister [mayor] Unterguggenburger took advantage of the local unemployed labor supply after a cellulose factory, sawmills, and cement works were idle in an economic downturn. Unterguggenburger issued a depreciating money, and by matching workers with the construction of forest paths, and other public works he stimulated the local economy and supported the local culture. Other community currencies can claim to support their local communities too. The Eusko in the Basque Country aims to support the local, albeit defined in an ethnographic, and not purely economic sense (Edme-Sanjurjo et al., 2020).

Local currencies can achieve circularity by restricting where money is spent. Decisions on restrictions require governance. In Sysmä, the idea to restrict usage to the locality rubbed against the issue that in a Book Town, the bookshop in Sysmä⁹⁹ which held the project info point did not meet the locality criteria to use the sysmä! In the VTS points system, points can be used with preferred suppliers. These suppliers are not obviously privileged for supporting a local economy. These examples highlight that only looking at a critical figure is overly reductionist. It fails to consider all the relevant factors of culture, knowledge capacity, and other capitals.

3.4.2 Relational capital

In rural areas, there are significant geographical distances between actors which leads to a relational capital deficit that makes taking action harder. The deficit alone does not promote the privileging of the local. An interplay of factors has made it impossible for a spontaneous generation of alternatives. A deliberate focus on community economics is needed to propagate alternatives if local development is to happen. Credit unions, rural development banks, and other chartered financial institutions are ways to help communities focus.

These institutions provide financial capital, act as innovation incubators, and provide fora for potential inventors, innovators, and entrepreneurs to interact. The social dimension is equally, if not more crucial, to make things work than money alone. Farmer machine rings are an example of how such socioeconomics operate (Sutherland & Burton, 2011). Here, services (the use of a combine harvester or harrow, for example) rather than goods movement can overcome friction for localized markets to function. Cf. Griffin (1993) for a discussion about personal information and friction in capital markets.

Can the sharing caring farmer culture extend to the local circularity of other goods and services? (Cf. Nazzaro et al. (2021) on social farming and solidarity). Agricultural extension services are an example of how knowledge, including the culture of farmers, is disseminated (Knook & Turner, 2020). The most successful

⁹⁸ I use propagate because the new system will not be exactly like the old one.

⁹⁹ Sysmä was in the International Organisation of Book Towns. See Article I for details.

extension seems to operate from a nationally supported local association, rather than an autonomous, locally generated self-help group. Small groups may lack structure and access to various capitals; those are more easily gained via participative networking effects.

In England, there are several locally led farm action groups¹⁰⁰, which can be traced back to productivist efforts during the World Wars (Short, 2007; Sheail, 1974). Today's groups have a wider remit, considering farming improvement along with cultural and social matters. Rural areas also benefit from community councils (see Article I), one of which I worked with to create a Village Design Statement. Village Design Statements are deprecated, but their replacement, local-, village-design plans, do consider local economics in their design.

Some of Finland's village actions are quite inspirational (such as those covered in Article I). However, they are not universal, and their efficacy is questionable. Declining rural areas indicate rural municipalities have not dealt well with the current demographic challenges.

Chris Cook, at the Institute for Security & Resilience Studies, UCL and a member of Linlithgow & Linlithgow Bridge Community Council in Scotland, suggests that there is a way that alternative economics can be brought to bear in a rural area. He, along with Island Power LLP, plans to base Linlithgow's community economics on energy provision. They have an ownership model that turns the flows of power into demand for a resource that is *monetarized* (not just turned into money, but a monetary system) as an option that locals can exercise for their own benefit for or sell to industrial customers (Russell, 2015).

Ramsey et al. (2013) describe how renewable energy technology was transferred at an appropriate scale in Northern Ireland via a flexible project, despite not operating under the New Paradigm. Đokić (2019) indicates a narrow focus on agriculture should be broadened to include rural development with a "social dimension", that emphasizes the need for working and living conditions.

Energy communities seem a viable way for many rural areas to work toward a more circular economy. When combined with affordances for local food and clothing provision, they suggest autonomy or self-sufficiency is possible. Yet to take part in globally useful things, some thought needs to be given as to how they interact with the global economic system, especially if they are to be transformative and not co-opted by that existing system.

We can bring (both into visibility and manifestation) other flows that have not been considered with our choice of current-see. We can decide that plant and animal biodiversity are valuable. We can monitor their flows in a restoration process. We can bring a flow into the balance. If we color the flows in a visual way, we can see them without having to understand them in terms of numbers

¹⁰⁰ My uncle, Malcolm Tomkins recently ran a local farming group. He was well-suited to the role as he worked as a lengthsman, responsible for ensuring drainage and road infrastructure were kept in good condition in the parish where he lived. He worked professionally for a crop science firm, as an expert in crops and crop treatments, across Europe, the Middle East, and Africa. Notable organizations with local groups are: The Farming Community Network, <https://fcn.org.uk/our-history/>; UK Farmer Group Discussion Network <https://www.farmergroupdiscussion.org/>; and Farmers for Action <https://www.face-book.com/people/Farmers-For-Action-Northern-Ireland/100064479048467/>

or even ratios. We can use the same flows to look at extinction vortices and see if we can arrest or reverse the vortices.

Extinction vortices are a concept from ecology, that can be extended to socioeconomics (Herzon et al., 2022). The vicious circle is a similar economic concept. We could think of a propagation vortex as the antonym of an extinction vortex. The theories around circular cumulative causation suggest we can counter the downward, mutually reinforcing spirals (vicious circles and extinction vortices) by inputs into the system (Berger, 2008; Myrdal, 1957). We can reverse the flows and lead to restoration and renaissance positive feedback.

4 RESEARCH POSITIONING

Chapter 4 gives the theoretical background to the positioning I applied in my research. The dissertation epistemologically follows integral science. In Chapter 4, I will give a reflective account of myself as a scholar, which is a common practice for those using an autoethnographic methodology. Then, I will introduce and contextualize integral science before expanding a bit on its application to community economics.

4.1 Personal Reflective Account

I mentioned above¹⁰¹ Plachetka and our conversations about research questions. His praxis of agricultural anthropology (2011; 2020) was his way of dealing with a dilemma that affects much of academia. There is a tension between being a practitioner and an objective, separate observer (see JanMohamed & Lloyd, 1990 for an exploration). For me, science is a process or the praxis of growing to know together. A research question suggests a deterministic outcome, whereas I cannot know how the 'we' will grow.

I do not want to constrain that 'we.' It is the same in any relationship of mutualism. A parent-child relationship can experience the parent wanting the child to self-actualize, but pretending that the child is not merely half of the adult genetically, or ignoring that the child is growing up in a different, historical culture from the parent's rather than the presently existing culture is quite blinkered. I exist ecosynergistically with the wider world in a network of relationships, and we should all grow together. We exist in the now.

A research question would be such a deterministic, restrictive approach to science. It is not animated and dynamic. It would lack the vitality of reality. While it makes some sense to know where you are exploring, the mental map only develops as you explore and make sense of the world. The map is a heuristic and

¹⁰¹ See 1.4 Research Questions & Community Currencies.

does not really capture the complexity of the world. Plachetka wanted to work with those already steeped in the world of herbology and cultural knowledge¹⁰². He calls them “professors,” though without an academy bestowing any title upon them (Plachetka, 2011).

I, in turn, have the concept of working in an activist¹⁰³ way. I am a scientist, which is a portmanteau word combining scientist and activist. There is a similar portmanteau with artist, an artist who is an activist in their praxis of art. Their art is purposive, it expresses agency for social, community, environmental, or even political aims. So it is with my science.

Academia must respond to the climate emergency, by breaking the third wall of scholarly discourse, to interact with the present situation. Now we are in the Anthropocene. Our community economics are in a different environment. A rupture bigger than the French Revolution, internet technology, and ubiquitous computing surely needs a similar magnitude of response? While I signed the Scientists’ Warning (Ripple et al., 2017), wrote for Extinction Rebellion’s XR Scientists “talk” (Weston et al., 2021) update and positions..., I must go further. The implications cannot be ignored when writing a thesis. They must be acknowledged explicitly.

A long-term development response to the emergency is required. That statement is oxymoronic, as emergency responses are usually immediate and longer-term responses are usually considered as development. In Article IV, I wrote about the way our current situation is a chronic emergency (a type 2 emergency), and so an emergency response is appropriate. Survival priorities needed to cope with that “emergency” are covered in Article IV, one of which is community. Community is a broad umbrella term¹⁰⁴. There is no simple planning blueprint to follow to meet the community survival priority’s demands. Community, in its breadth, includes our ways of existence with the land. We can consider both nomadic ways, and small village settlements¹⁰⁵ in networks as apposite viable modes of existence.

I have lived in rural and urban environments, and the rural ways seem to me to be a good solution to the emergency. Others share my opinion and want to make rural areas viable. Plachetka and I come from the same milieu of those with

¹⁰² I did the same when in Thailand researching with the Indigenous peoples there for my master’s dissertation.

¹⁰³ I am an activist too. I started a Local Friends of the Earth Group, founded Young Greens England and Wales, started Elokapiina (Extinction Rebellion) in Finland, and have taken part in non-violent direct action, solidarity berry-picking, manifestations, public speaking, stood for election, and was a local councillor who got a Village Design Statement accepted as supplementary planning guidance. I was on the board of a village youth club I started and have supported civil society associations in the arts, minority rights, union rights, anti-war, and the built environment and a railway museum. I have been a nature reserve warden.

¹⁰⁴ See 2.3. Community and the Econosphere for an exploration of what community encompasses. Here, community is used as a heuristic, as a survival priority to be considered, and its breadth is flexible to the situation.

¹⁰⁵ New monasticism (Wilson-Hartgrove, 2008) and settlement houses (Yan & Sin, 2011), offer some possible models. Like ecovillages, they are diverse (Wolf, 2009), but usually have the concept of community and mixed populations in terms of educational and skill levels built into their requirements for residence, source: <https://setlementti.fi/en/in-english/>

an interest in rural regeneration. We both interacted with GiVE¹⁰⁶, which is an independent social science research laboratory focused on ideas around the global village. GiVE (Nahrada, 2007) was created by Franz Nahrada, who takes an interest in demonetization for an ecosocial (Exner et al., 2020), rural-based way of existing; the digital transformation of society (Nahrada, 2002; Nahrada & Schröter, 2022), and other related aspects of the great transition (Petz, 2019).

I mention these aspects because, even though it is me giving a reflective account, my conception of the self is not a limited, isolated one. I am part of a bigger whole. In my research, I used autoethnography and autoarchaeology. But I do not just dig into my own creations; rather, I dig into our own, and make use of wider aspects of the milieu I am part of as a 'we.'

By using autoethnography (Adams et al., 2017) and autoarchaeology (Harrison & Schofield, 2009) in my research (particularly Articles II and III), I captured how I related to the schemes, on which this research is based. Self-capturing has the advantage that, by careful observation and introspection, I can more easily and in depth interrogate aspects of the systems without biases from others creeping in. If I am truthful (truth-telling is no easy task), then truths can suggest how things appear.

By holding and spending *sysmä*, I see how it is to try and live as a *Sysmäläinen*. By looking back at my records over several years in *BookMooch*, I get a good impression of how well it functions as a system. By investing a small amount of money in *Neco* (Article III), and following that self-interest (or community-interest to include the transformative aspects), I get the same feelings a typical small investor gets when marketed to. *VTS* housing is where I live, and so I talk as a participant observer. I am deeply embedded, or deeply hanging out.

By juxtaposing autoethnography and autoarchaeology (my own sources and my own experiences), with the case study research ethnographic approach (observation, interviews, and archival findings) there is a chance of triangulation and better learning. Is there any evidence of differences that were validated or more nuanced conclusions due to these two different approaches? Is there a bias between them? Which is preferred if there is a conflict? How is that resolved? Much as quantitative and qualitative data can disagree – is one chosen over the other, or can there exist a cognitive dissonance where both are seen as equally valid (poles?) perspectives to give overlapping experiences and understanding? Is one more emotional and the other more rational?

Such questions naturally arise when new methods are encountered. A preference for the innovative should not privilege it over the traditional. I took an approach that looks at these methods as ways to complement each other rather than conflict. For example, describing what happened (historical facts) distinctly from how things are or even will be (interpretation) is clearly done. Multifaceted understanding is facilitated by the structuring of articles that encourage plurality.

¹⁰⁶ GiVE stands for Globally integrated Village Environments. The registered association GiVE is inspired by the original meaning of Marshal McLuhan's Global Village: That is, the village has the global goodies made available to it, not the more recent usage of global village to mean everything is connected to make one giant village.

But where am I in this process? I am socialized to some extent by the society I live in, how its members treat me, and how it operates. At the very least, it gives and takes affordances, which suggest or limit what is possible and practicable. By putting myself into the process, I can partially transcend those limitations.

Me, myself, and I.

Cache-moi dedans les tournesols [hide me inside the sunflowers], which refers to the sunflowers turning to the sun for sustainable existence and that the tournesols are the symbol of the green movement in many cases. These words resonate in my mind under the idea that I am not alone, yet I / my work will not be completely effaced (like the partisan in the song *La Complainte du partisan*¹⁰⁷), but I am still somewhat of a clandestino (a hidden person that is in a society without that society's full acceptance). Romantically, I am part of an intellectual vanguard that will fade like the maquis. The French rural resistance of World War II was known as the maquis after the gorse-scrub landscape they operated in, they aimed not for a political ideology, but to fade away after getting their freedom from the occupiers. Here you see my humility or hubris, depending on how you read my words.

As I carry out my research, I carry with me wisdom and praxis from other times and places. I do not have to have directly experienced them, though in some cases I have. Vicariant experience is possible, so dreaming, imagination, and fiction are all inspirational. They can reflect a magical process that creates a new reality to live by. I am creating that reality and putting my slant on it.

What label might I give overall to what I am doing? In the past, I would have given the label ecosynergy. Ecosynergy is an artistic movement I invented that refers to the engagement and embeddedness of what we do as an integral part of the natural world. I am not separate from it. Now I wonder if that is too limiting. I wonder if my conception of collaborative working is reflected in my situation of appearing to be alone from an outsider perspective. How do they see me? Doctoral supervisors do seem to see me as autonomous and do not see very much of the milieu I am working in, as much of it is not in the university environment and not in any research team or group.

While I may appear alone, I never am. I am carrying so much more with me. Culture and memory bearing does not mean that I cannot feel loneliness. Loneliness, for me, is more of an absence or a feeling of being bereft from something or someones. Absence is ever present, as there is always someone or something that is not present except in memoria. What lives in the memory is

¹⁰⁷ In the French original "La Liberté reviendra, On nous oubliera, Nous rentrerons dans l'ombre" [Liberty will come again, We will be forgotten, We shall return to the shadows]. In the English adaptation called *The Partisan*, "Freedom soon will come; Then we'll come from the shadows," source: http://www2.ac-lyon.fr/ressources/rhone/arts-culture/IMG/pdf/la_complainte_du_partisan.pdf

tinged with the maudlin; though it may be quite vivid, as in Proust's Story of the Madeleine¹⁰⁸, if the memory is enlivened.

At the same time, I feel the wider world of which I am a part. It is not possible to escape the Earth we came from as humans; the old curse from my Transylvanian heritage comes to mind: May the earth reject him. The natural world is a part of me, and we are ever together. I have artifacts that carry some powers as talismans. There are squirrels at my window. Trees rustle in the blowing wind by my side. Even on a still day with the curtains closed, I can feel the ground beneath my feet and the air that teems with vitality over the sounds of the mournful cranes and buzzing bees.

However, the human realm is often absent. Much of my work is done alone or with ghosts and spirits from elsewhere, the paper records or now increasingly electronic ones that are the ghost in the machine, if not part of the machine to which knowledge contributes and is connected with. It feels like discovering a lost library in a forgotten city buried by sand and time – Ozymandias¹⁰⁹ comes to mind. I find much of my work is done in a solitary, individualistic way – which others could describe as alone, so very much alone.

Solitude is not a choice on my part. I would prefer to tell stories around a campfire¹¹⁰ – to yarn in an oral culture collectively sharing stories and poems together (see Yunkaporta (2020) for yarning) than research or write or do anything else alone. Even thinking can be much improved if there is input from others to correct and hone my thoughts¹¹¹.

There are some others in my milieu, so we do share and explore to some extent. Can they be labelled research subjects? Am I not also a research subject in the same way? Rather, they are travelling on their own paths. Some are quite nomadic and hermit-like with similar paths to my own – being “interested in everything like me,” as Andrew Paterson¹¹² whimsically (whimsically questioning) commented to me once. I see them as fellow hitch-hikers. Perhaps we will be picked up and travel in the same vehicle for a while, or they will go ahead while I wait, or vice versa. We all have some level of patience to see who the currents of the river of life bring in their flow, and where we might be taken.

Passivity implies no agency and that everything has an external locus of control not amenable to our wills. There are elements of that external power

¹⁰⁸ The Story of the Madeleine is found in, *Du côté de chez Swann*, the first of seven volumes of, *À la recherche du temps perdu*, by Marcel Proust (1988 [1913]:527) from Gallimard. Briefly, Proust's memory was stimulated, not upon seeing the madeleine cake, but when tasting it.

¹⁰⁹ Two 1818 poems, written by Percy Bysshe Shelley and Horace Smith, both sonnets called *Ozymandias*, tell of the loss of the knowledge of the pharaoh Ramesses II, where all that remains is a statue with a fading inscription of his Greek name, the rest swallowed up by time and desert sands (Bequette, 1977).

¹¹⁰ I took part in digital and real campfires to use the social technology called campfires. E.g., campfires run by Benji Ross of Earth Regenerators (Ross, 2023).

¹¹¹ I engaged in collective thinking via Minčič Sodas [Orchard of Thoughts] network of independent thinkers; and Philosophy Unbound, a performance philosophy collective, as an initiating member.

¹¹² I cooked with Paterson wild-foraged food, which is part of “the ‘Kitchen Lab’ format of hybrid exploratory practice ... as situated knowledge” (Paterson, 2021).

which restrict the choices I can make. As a Brit who faced down the travails of Brexit, has been denied housing or employment by people that would “rather have a Finn” or excluded from study possibilities as funding was only given to citizens studying in their own countries of citizenship (not me) I was limited.

Beyond racialism and other modern barriers like bore-o-crazy (tiresome, unnecessarily vexatious bureaucracy), some things are within my internal locus of control. These I can decide based on my cultural background and beliefs. I can decide that a rural focus is important in what is researched. I decided action research was useful. I had autonomy in taking a phenomenological approach to what I did research-wise. Yet even these choices were limited by what I was aware of and what I was supported in doing, or rather, where there was an absence of support. Restrictions due to funding, family situations, and mostly lack of time meant the choices seemed to be the most – not just convenient, but apposite, of those available.

Here I switch from an I perspective to a ‘we’ perspective. Why is that? As ‘we,’ we are legion, with various aspects and dimensions in our approach. We is because there is not an I in the we that are progressing. To speak of my approach and I, gives the misleading impression that there is only me involved. Yet the research is done as part of a cultural tradition (Legan, 2007), in concert with those researched upon (with), and could be narrowed to humanity, a collective science or knowledge, or in other ways, but never to an ego-tistical I. We-ness needs to be unpacked for those that live in an I-focused cultural frame.

Andrius Kulikauskas, a Lithuanian philosopher (Kulikauskas, 2014) connected independent thinkers into a network called *Minčių Sodas* [Orchard of Thoughts] (Kulikauskas, 2017). During that networking process, all members were asked to identify our deepest values. These values included: Living by truth; Awareness of my own non-existence, and in my case, Meaningful inclusion. Values were then mapped via a mathematical process (Bauwens, 2014) to see proximity to each other and to bring awareness of the different dimensions within the Orchard, which then encapsulated us as in a shared culture. The ‘my deepest values’ became ‘our culture.’ So even if I had not been living meaningful inclusion – after the acculturation process I was, and as a ‘we’ too. I am in touch with other members (e.g., John Rogers, John Waters, Franz Nahrada, Dante Gabryell Monson, Michel Bauwens)¹¹³ in the orchard and we share our thoughts and endeavors.

Our solidarish culture respects individualism while juxtaposed with collectivism. The paradoxical accommodation of individual perspectives,

¹¹³ Their deepest values and investigatory questions were: JR, Participatory Society (Cyfrangi), How can we create sustainable community currencies? What does a sustainable CC look, sound and feel like?; JW, Minimizing All Avoidable Pain, How can society be organized to minimize the waste of precious resources? How to engage the majority who don't seem to imagine that there are potential solutions?; FN, Optimal interplay. Everything should unfold its full potential by interacting in the best way with other things. How can we use the emerging possibilities of infrastructure and new tools like video bridges to create a synchronous worldwide collaboration environment between communities?; DGM, Open-World: Opening up dimensions that open up dimensions. What system makes for the most opportunity?; MB, Being able to relate to people in a peer-to-peer way. All values are available at: <http://www.ms.lt/derlius/values.html>

embedded in a collective relational identity is found amongst many indigenous existences (Miller, 2018; Hossain et al., 2011). What does it mean to be an Indigenous person? How about an Indigenous culture or society?¹¹⁴ How do we assess who is indigenous and who is not? As with any attempts to create hard and fast categories, there are those that do not fit neatly into the ontology, and classifying them proves problematic (cf. Yunkaporta, 2020; Benterrak et al. (1996) for discussions around indigeneity).

With the rise of identity politics (Gitlin, 1995; Noury & Roland, 2020), classifications have reached from the personal into the political and the dogmatic much more than previously, where there was an accepted norm which could be contrasted with to give an 'other' (see Article IV). That other could then be labelled on grounds that, if not controversial, were at least clear.

The awareness of identity prompts me to introspectively look at myself and my identity. What is my identity now, how does it connect into the past, and what is its future? How will I connect with my descendants? Various indigenous wisdoms tell us to think future generations ahead (Kimmerer, 2013). We should plan not for ourselves now, but for our great-granddaughters (Nahwegahbow, 2017), or for when acorns will be oak trees (Hart, 2021), or even longer into deep time (Yunkaporta, 2020). So who will be the Indigenous people in the future? The future is unclear, but based on a historical perspective in how new peoples can arise, the concept of future Indigenous people living closer to nature means we can reconstruct an ancestry of peoples to be.

Such a futuristic conception envisions us consciously developing the culture of those Indigenous people to come. Joe Brewer speaks explicitly about creating a consciousness and cultural scaffolding for people based on bioregionalism and a watershed consciousness. The descendants of these people (us) will be the ones who will have adapted in terms of cultural evolution to a place. Thus, they will be the Indigenous of the future, and we will be their ancestors (Brewer, 2021).

Related to this futurist concept is the idea that everyone is descended from Indigenous people (meaning embedded in a kin and kith system tied to land; rather than the weak Gaian concept that we are all indigenous of the Earth as a

¹¹⁴ There is a difficulty with nomadic cultures and peoples, who, while having a coherent identity, may not tie it to a particular geographic location. Shifting cultures or modern migrations are examples where identity and place are not well tied. Is a diaspora indigenous, and if so, to where? I do not deal with that here, though there are those involved in nomadology (Article IV) who are living a deterritorialized identity. Nomads appear in direct contradiction to a watershed, conscience, which is ostensibly tied to place—the watershed. However, nomads via an attitude of mind, or *Weltanschauung*, can paradoxically embody both deterritorialization and a watershed conscience, which they carry with them as a cultural memory. For more on nomadology as flows and a contrast to static, atomized ways of existing (or even scientific philosophy), see Deleuze & Guattari (1980); and for how nomadology prompts a questioning of sociology based on nation states as we segue into a globalized culture of flows and extra-state relations, see Urry (2000).

whole), and those Indigenous people were connected to place. I too am conscious of such dynamics, of the temporal dimension, of how I think of myself, of the scientivism I carry out, and of what it is manifesting.

My science is done as action research (see 5.5 Action Research). I have a practical science value system and heritage that affects where I am looking for inspiration and direction. Thus, there is a vision as to why I am researching, founded on these historical aspects I experienced and am aware of. In theory, if I was raised in Japan, I might have a different, Japanese view of science. My chosen subjects could be similar, but I might place more emphasis on harmony, for example, or balance in a way that is not so strong in the culture I come from. Similarly, the influences I gain would be from differently written and spoken texts and media.

Performance from my experiences and knowledge (vicariant experiences) are idiosyncratic, though it is mediated by the cultural milieu I interact with. I do not give here an in-depth, thick description of what my cultural influences are. A brief sketch of significant elements will suffice. The protestant morality (found in Northern Europe) of self-responsibility, and the individualism of Western society are facets that frame the science as an 'I' rather than a 'we' enterprise. My experiences of living in a rurally isolated area (where I grew up) influence me to go beyond self-reliance (cf. the Hávamál (Clarke, 2011)) to think more about collaboration and cooperation on a societal level.

Communitarian approaches are in my cultural heritage. I am Mercian, meaning I come from Mercia. Mercia is an ancient country in Great Britain. It was based on a communal way of life. In Mercia, the society of a place was raised above individuals (The Mercian Constitutional Convention, 2003). Cultures focused on community rather than individualism still exist, e.g., Pashtunwali (Shams-ur-Rehman, 2015). Yet they are less prevalent in Northern Europe.

Mercian culture, and the associated communitarian approaches, helped to create the rural societies and collaborative ways of working found in many villages today. I grew up an active part of the villages I lived in¹¹⁵. Community involvement brought awareness and care for the ethics of what is happening with respect to other villagers. Science as practice is doing stuff that affects me; not merely observing or experimenting on subjects that are disconnected.

So, the 'we' is involved with networking and a more enmeshed relationship to surrounding situations, something that is seen in pagan communities and in marginalized, liminal responses to exclusion from the mainstream. I had these influences, giving me a spirituality that is part of an identity of transience and nomadism, and partly an affinity with others that are so excluded, together we manifest a modern court of miracles culture (John-Richards, 2020). My experiences influence my approach of being suspicious / or enquiring deeper within to find more occult and deeper layers and resonances in the science that I am doing.

¹¹⁵ I am a member of the Acting Witan of Mercia. The Witan is the highest level of government for my Indigenous people, the Mercians. I grew up in village communities.

Greater depth is found in my relationship with the rural agrarian cultures that influenced me. Mitteleuropean, German, and related Balkan cultures, are part of my cultural and family heritage. Here there are elements that can be found which are very broad and mostly come through the way that things are structured, logically, and arrangements of presentation, that affect presentation in research and inquiry modes. Emplacement and situational factors are not easy to analyse. But for example, when talking with a small business owner, I will position myself to gain the perspective of: How can we work together to make a better business for the community? I do not bring to my interactions the contrasting perspective found in exploitive capitalism. A similar approach exists for public policy with an official, or a person in a community who has a strong religious conviction.

In a way, conscious positioning is serving the people of that community, as good development research is often encouraged to do. However, it is more than serving others in that community, I am an actual part of that community when I am doing my research¹¹⁶, not remote from it. Entanglement has affected the research I did with all the case studies, where there is a deeper aspect than only finding out, a purposive element is involved too. I aim to weave the helix together. I am the nexus of that research, which is not done on some outside body, it is simultaneously done on myself, like dancing together or growing a forest as the mycelium or a tree in the forest.

Ultimately, I am not adopting a mask or a role that can be easily shed after the research is done. I am living my truth, which is the research in actuality. It could be called 'actuality research' rather than 'action research.'

4.2 Integral Science

Epistemologically, humans perceive reality or nature from different positions. To think as an artist, or scientist, or design scientist (designer) is not neutral, but contains a standpoint and thus a philosophical position. Cf. Harding (1998) for more on standpoint epistemology and science. The presence of these varied standpoints becomes clear upon reading texts produced by practitioners or talking with those self-describing as scientists, artists, or designers¹¹⁷.

¹¹⁶ I follow an integral paradigm here where research is not separate from marketing, development work, laboring, etc.; comprehensive inclusivity is of course an ideal, and there must be sometimes more of one, for example, politics done than research. It makes it quite hard, and in some ways illogical, to try and separate research from teaching or doing!

¹¹⁷ In my relational ontology, we can think of different domains in how we approach the world. These domains include science, art, design science, though others can be considered, e.g., spirituality. It is possible to operate in a way that is inclusive of these different domains. You can have a religious artist, for example. Thinking in terms of domains is not common. The inter-domain approach can be seen in the way of Leonardo da Vinci called *saper vedere* (knowing how to see) (Gelb, 1998). "To develop a complete mind: Study the science of art; Study the art of science. Learn how to see. Realize that everything connects to everything else." Is a quote attributed to Leonardo that summarizes this idea (Pasipoularides, 2019; Kinsman, 1989), though I can find no original source of Leonardo writing or reported as saying exactly these words in any language. For more on da Vinci's approach, see his *Notebooks* (2020 [1883]), and *A Treatise on Painting* (2014 [1802]).

Their life practices affect what they do and how they conceive of things and approach the world when operating in these domains. Social performance colonizes their minds (partly by deliberate education and partly by framing and familiarity), so by a process of disciplinarian (or even domain-level) focusing, many are alienated from alternative or counter-factual approaches. Thus, praxis encompasses not just the practices carried out, but the philosophy around them too (Schwandt, 2007:240-244). In disciplinary application, secondary socialization is inevitable, even though efforts are strenuously made to avoid the biases and blind spots so produced. Logical fallacies are hunted down, scientism is called out, and peer review is developed to catch the erroneous in their folly by those more learned¹¹⁸.

There is a way to bring in new ideas and perspectives. The way is by a process of revolution (though different perspectives arise, even in the same field (cf. Massimi, 2019). Kuhn (2012:151) writes “a generation is sometimes required to effect the change,” so not quick. There is one of Kuhn’s “scientific revolutions” happening now. A change from logical positivism and post-modernism (which, from an integral scientist’s perspective, are part of the same path in the cultural development of science, and from a hard perspective, can be considered the same) toward integral science. At least an integral turn is detectable.

I offer a brief description of how I see integral science. Integral science is an epistemology of approach. Integral science is a philosophy. I do not offer a thesis on the philosophy of integral science, so what I write is ironically incomplete. The integral does not exclude counter-factual and fictional or ‘alternative’ or esoteric research methods; it embraces them, yet it still filters them scientifically – it is not blindly accepting of just anything. The fundamental aspect of integralism is that it integrates divergent views and perspectives into a coherent whole. The most renowned practitioner is Ken Wilber (1998, 2001), with his integral view of societies with their cultural evolution, is called spiral dynamics.

Methodological pluralism is the hallmark of an integral thinker. They will be influenced by different traditions and methodologies. Pluralism creates a certain level of idiosyncrasy and makes it harder to place pluralists within a particular school or tradition. The significant origins of integral thinking can be traced in Western civilization to German phenomenology and metaphysics. A significant thinker here is Jean Gebser (Johnson, 2019), who came from Germany (lived in France and Switzerland) and created a structure of societal evolution based on ideas of cultural evolution that included the archaic, magic, mythical, mental, and finally integral structure (Gebser et al., 1985). His work was subsequently developed by Ken Wilber (2001).

The other major strand of integral scholarship is derived from Aurobindo Ghose (2001), who was born in the British Empire (in India) and gained an education in England. He was well-versed in Western and Eastern philosophies. Spirituality is an important component of Sri Aurobindo’s approach, which is

¹¹⁸ See Gordin (2012) for how marginalization and exclusion recently developed, in the domain of science, as cultural practices of social exclusion. Gordin deals with pseudoscience, fringe science, and mainstream science practitioners. He explores the recent history of how they were excluded or included as scientists, with the concomitant treatment of their research.

called integral yoga. In a way, 'integral yoga' is a tautology, as traditional yoga properly applied is integral (Bhamra, 2013).

Ghose focused on individual self-actualization. Actualization can be extended to the societal level too. The aim is to go through various states of awareness – called minds: the mundane mind, the higher mind, the illumined mind, the overmind, and ultimately the supermind. Ghose's work strongly influenced the California Institute of Integral Studies; and Ken Wilber too, with elements of spirituality tacked on by him to Gebser's integral societal evolution.

It is a mistake to think about integralists, by merely looking at their work in the academy – where it is found (Forman & Esbjörn-Hargens, 2008) – or to search out integral scientists only based on peer-reviewed publications. The inhabitants of the ivory towers of academia share much with the yogi on retreat in an ashram or the off-grid yurt of a neo-nomad regarding developmental thinking and content production. To deeply follow an integral philosopher's approach into their orchard of thoughts, we must live experientially in varied ways (see Place et al. (2021) for his use of meditation and fasting).

Both Gebser's and Ghose's approaches to knowledge stress incorporation and extension between disciplines for human development purposes. Others then take this fundamental approach and frame slightly differently in terms of what they consider integral and how they arrange or juxtapose those different approaches. For example, Lessem and Schieffer, of the Trans4m Center for Integral Development in Switzerland, explore their framing in the Transformation and Innovation Series books (Lessem & Schieffer, 2021). In their approach, they link to different areas of the world and integrate them into approaches on themes, e.g.:

Marko Pogačnik's (6) integral starting point, as a Slovenian sacred geographer and conceptual artist, whose unique craft takes him around the world, is the four elements that traditionally compose the fabric of life on earth...:

- the material (earth element), embodying the ecological;
- the spiritual (air element), representing the cultural;
- the emotional (water element) reflecting the social;
- and the vital-energetic (fire element), depicting the economic¹¹⁹

While Lessem and Schieffer's citation presents the elements as separate and atomized, an integralist does not conceive of them in that way. The aim is not to distill in some kind of greedy reductionist or partial report. Very much thick description, and thus contextualization is required to give a constellation of related thoughts.

Integral science has been questioned as to what it is. The questions partly arise from different people with different aims claiming they are integralists, e.g., Laszlo (2007), who is quite esoteric and borderline pseudoscience; Mazzocchi (2006), who attempts to integrate Indigenous perspectives that follow different conceptions around truth; Nichols (2012), who calls for spirituality and castigates social scientists for current praxis.

¹¹⁹ Lessem et al., 2016.

As the revolution is in progress, consensus is to be reached and not all are in agreement (e.g., Barker et al., 2023 avoid the term integral). There is no manifesto that everyone agrees with. Older strands of thought that accord well with integral science that arose before it was named or conceived of coherently remain influential.

According to Kuhn, there is commonly a rear-guard action fought by older practitioners in scientific revolutions. The counter-revolution is quite evident in a desire to rubbish integral thinking or make it part of post-modernism, e.g., by labelling it post-post-modernism. There is a proclivity for differently named movements that are fundamentally integrationalist to use their own terms and descriptions, e.g., system science (Pilgrim, 2000), pattern sciences (Leitner, 2015; Schwab, 2015), cybernetics (Kline, 2020; Thomas et al., 2007). Despite these counter-revolutionary and independent challenges in the intellectual milieu, I take the irredentist position that we can better think of them as strands of integral thinking that should be reintegrated into the integral Weltanschauung¹²⁰.

4.3 Econospheric Positioning

The integral approach is found in economic scholarship (Lessem & Schieffer, 2010; Arnsperger, 2010). Recently, integral research (Esbjörn-Hargens, 2010; Bhaskar et al., 2015) was used to explore community currencies at the Lancaster University pathway of the University of Cumbria (Place et al., 2021). Some of Place's inspiration was from Bernard Lietaer's work. Lietaer (2000:285) describes his concept thus:

Integral Economy: an economic system that has achieved a balance between the Yin and Yang economic circuits, creating and nurturing respectively social and financial capital, while respecting at the same time both physical and natural capital. An Integral Economy is claimed to be indispensable for a truly sustainable society to function. One way to achieve that is to have Yin and Yang currencies operational as dual, complementary monetary systems. An integral economy supports the spiritual human evolution towards integration and individuation, in ways that a purely Yang economy cannot achieve.

For him, the macroeconomy includes financial capital, and he describes the money used therefrom as "yang money" and "yang currency" (271)¹²¹. His integral vision is of Sustainable Abundance:

I believe that Sustainable Abundance can only happen with a sustainable money system as a precondition. In practice, that means complementing the prevailing Yang

¹²⁰ The ideas behind integrating here reflect a long tradition in the natural sciences where there is a tendency to lump or unify everything. The opposite tendency is to split or atomize everything. Here I mean these strands should be contextualized as part of theoretical coherence. Cf. Barker et al. (2023:114-138) for a "Unification metatheory table" for ideas of this meta-meta theoretical level in how others want to see the world.

¹²¹ Lietaer adopted the use of yin and yang from Jungian philosophy due to a paucity of equivalent terms in Western languages. Lietaer also considered the work of Miura Baien (Lietaer, 2000:69) who had a community currency system based on rice and considered yin-yang aspects in his praxis.

currency generated by central hierarchical control with Yin currencies created by the people themselves. Among the money innovations that have proven most effective are:

- mutual credit systems that self-organize to ensure that currency is always available in sufficiency;
- and demurrage charges that encourage exchanges rather than hoarding.

This is what worked in the few historical precedents available where an Integral Economy seems to have been implemented.

But – as we saw in these case studies - money is not the only domain where changes are going to be needed. An even more ambitious aim is to facilitate the integration of the Yin archetypes which have been repressed for thousands of years, and which are now needed to make the next evolutionary step of our species. Hopeful signs have been detected that such integration may be on its way in the form of the surprising emergence of a Cultural Creative subculture. (ibid.).

Lietaer's methodology includes diagrams, artistic research methods, stories in a process of ekphrasis¹²², and other diverse practices as would be expected from an integral scientist. I am applying the same tradition here.

My focus is on community economics. The position of community economics lies somewhere around the meso-economy. The meso-economy lies between the individual, rational decision makers of microeconomics, and the macro level of banks, governments, and whole societies. As I covered previously, tiered positioning is problematic if we consider a more rhizomatic approach to phenomena and not one that is easily divided into atomized economic thinking. Both rhizomatic and atomized thinking can be approaches that are taken (see Deleuze & Guattari, 1980), but for me, as an integral scholar, the rhizomatic is closer to how I think the meso level can be explored.

Limitations apply to my research due to a lack of funding. Living in precarity with others researched with who are in a marginal position makes it challenging to carry out aspects of research, e.g., frequent field visits – who looks after children while the researcher / researchees are on a field visit? These shape my positioning as to how I approach the economy in research terms. I am approaching it as a user of certain aspects. For example, much of the financial and banking world is alien to me. Shares, housing loans, and investments are irrelevant to my life and so play no part in the economy as I look at it. Thus, my exploration of community economics tools ignores those aspects. Yet, low-income social schemes do touch my daily existence and so are of interest.

¹²² Ekphrasis is derived from Greek “ἐκ φράσις”, where it “means simply “speaking out” or “telling in full” and is “the verbal representation of graphic representation” (Heffernan, 1991). Historically, it was a form of poetry that commented on objets d’art, particularly paintings. The application can be extended to commenting on or vividly describing phenomena that are real or even imaginary.

5 RESEARCH METHODOLOGY

Below, I describe the methods (see Table 2: Methods in Articles) I use in my methodology. The stages of research, case study research, Artistic Research Methods (ARM), and ethics are covered. Along with data sovereignty I cover data protection. Lastly, I discuss action research and its relationship to the cases studied. The details of methodological utopianism are in Article III, and the particular techniques applied in each study in each paper.

Table 2 Methods in Articles

Article Title	Methods
Sysmä Community Currency	Case study research; analysis as a narrative; empirical investigation; hypothesis testing; classification / typology setting regarding CCs - generational, geographical, and purposeful; comparative analysis (implicit); policy analysis (implicit); project implementation evaluation; stakeholder analysis; field trips; media surveying; web scraping; networking; deep hanging out; co-performative witnessing; participant observation; community development research; Artistic Research Methods; journalling; documentary photography; archival investigation; thick description; informal discussions; semi-structured interviews; digital software transcription; voice recording; data cleaning; key individual identification / scoring; snowball sampling; opportunity sampling / convenience sampling; random sampling; web surveying; ethnographic approaches (archives, observation, and interviewing in situ); community-based data validation, naïve presentation stance - expert presentation stance; (marketing research) segmentation analysis; open coding; baseline surveying; market analysis, media analysis; cohort analysis, cohort approach; economic mapping; prototyping; benchmarking.
When is Money Not a Currency?	Case study research; participant observation; semi-structured (expert) interviews; media surveying; internet web scraping; online surveying; armchair economic theorizing; pattern making from pattern science (implicit); flowspace brainstorming; social flow designing; flow cultivation; convenience sampling; Snowball sampling; field trips; online surveying; content analysis; econometrics, (forensic) accounting;

	cultural analysis (implicit); historical institutionalist analysis; historical process tracing; comparative analysis; comparative policy analysis; Integral Research Methods.
The Politics of Money Utopias	Simulacrum case study research; methodological utopianism; anthropological learning, armchair anthropology; social dreaming; utopian practice; networking; internet searching; participant observation (virtually and in person); semi-structured interview; thick description, thin description, imagination, futurist projection; triangulation; Reception Theory inspired selection; close reading (implicit); utopian thinking (implicit), mimesis, thought experiments; categorization /case selection, genre selection; (historical) contextual analysis (implicit); archaeological (utopian hermeneutics), architectural and ontological utopian thought methods; field-work.
NomadTown, Manifesting the Global Village Hypothesis	Case study research; (qualitative) hypothesis proofing; thick description; historical contextual analysis; prototyping; (eco)cultural analysis; mapping, Foucauldian analysis; descriptive analysis; prescriptive action-oriented outputting; connecting; transforming; networking; network analysis; objectification; anchoring; deep hanging out, participant observation; video documentation; serial hanging out; interviewing; journaling; iterative reflection; social media analysis; web scraping, data mining; media surveying; literature surveying; storytelling, experimentation; global service learning; participatory action research and design thinking combined.

5.1 Stages of Research

The research methodology used in this thesis is within the approach of integralism as an overarching philosophical position. Integral theory is very broad, and the methods employed originated before operational positioning was coherently conceived. Nevertheless, a methodology (see Schwandt (2007:193-195) on methodology) is discernable. The methodology does not differ starkly from methodologies employed under other philosophical positions for a limited scientific output. Real difference arises as the methodology extends beyond inquiry to intervention, to bring in practitioner perspectives and to encompass a greater diversity of perspective than only knowledge production.

This system of methods makes use of four phases:

Data collection (cf. *ibid.*:64-66, on description). Data collection is somewhat of a misnomer, as what is collected is data mixed with noise (non-data), which could be called raw data, and it only becomes data via the process of analysis, which turns it into information.

Data analysis (see *ibid.*:6-8, on analysing qualitative data). The data now collected undergoes analyses to make sense of what it is and systematize it somehow so it can be generalized and interpreted for a purpose. It is now given

the status of evidence (see *ibid.*:98-99, on evidence), which was identified by the analyses.

Drawing of conclusions (cf. *ibid.*:314-317, on *verstehen*; interpretation (158-159); and interpretive sociology (159-160). The drawing of conclusions is not the same as the analysis, though in terms of data presentation, they can seem conflated. It is much more interpretive and relies more on feelings and ideas, which are formed into an argument. The argument is warranted or backed by the evidence.

Application of findings as a technology, a social technology or as action research. This is a collective process where a community is knowing and using the outputs.

It is a truism that the phases are not carried out sequentially over the whole study. When in the hermeneutic circle (see *ibid.*:133-135) or applying different techniques of analysis and triangulation (see *ibid.*:297-298), then data analyses can begin during collection and further interrogation of the data can take place, even after some conclusions have been reached, to add depth and nuance.

Thus, there is no simple linear process. Emergent properties can only emerge with a juxtaposition of different interpretations (which can come from interactions around the research with others such as in citizen science). Further data collection can be required to clarify and even replace what was collected. Winnowing leads to discarding surplus, unwanted aspects, and the recognition of the valuable. The process often leads to data loss, but it is aimed that any loss due to reductionism, smoothing, and highlighting of what is significant is minimal, so the level of confidence in the results remains high. Even so, output varies with the individual ensemble of methods.

Part of that variance is related to the praxis of me, this individual scientist, my positioning in society, and my interactions with others. Here there is a tension between methodological individualism (cf. Schwandt (2007:10) on atomism) and metaphysical holism (cf. *ibid.*:139-140, on holism). How I (we) contextualize and know something can be either by me alone knowing it or as part of an analytical relationship with an accepted unit of analysis, where we know it. Do I know it from my own perception? Do I only know it in a contextual arrangement, and without that context I cannot know it, and thus, by implication, everyone else cannot know it either? Does it remain unknown? How do we know it and what do we know?

Experience with a technology and how well it is used (my executive function) or suitable (the right task technology fit) affects the information, produced, and thus how reliable conclusions that are evidenced from it can be. Some of that is mediated by how I work, which is individualistic and not everyone else can copy or would even try and copy (cf. *ibid.*:24-26 on bricolage/bricoleur) for the concept that there is a diverse range of skills so that a social scientist is like a Renaissance scholar with a broad range of skills applied in carrying out what they do: philosophy, data technician, writer, rhetorician, mathematician, etc.). "Sociology is a very broad and diverse subject, and any

simple generalisations about it are questionable” (Giddens, 1990:10). Thus, social scientists have a similar diversity in the praxes of their science. Integralists are even more diverse with implementation having an artisanal aspect too.

5.2 Case Study Research

Inspired by my experience using case studies for my master’s dissertation (Petz, 2017a), I used them here too. I was influenced by “Case Study Research” as described by Yin (2009). Yin (see Article III) has a particular conception, excluding “popular case studies” from scientific research (Yin, 2018:19).

Teaching and learning case studies, which are other kinds of case studies, are sisters to the simulacrum case study (Article III), which attempts to generate learnings for application in a utopian scenario. Here the idea is closer to modeling or scenario building (economics often uses scenarios for the exploration of phenomena) rather than just recording reality (Petz et al., 2023). Nevertheless, rigor is wanted, and to subvert the theme (as here), some awareness of research case studies is needed. I did not create fictional utopian simulacra for the case study research for Article III. My cases are real cases and not fantasies I invented and then, in a circular way, drew conclusions from. It is more akin to a prototype, and how a prototype is not a ready-for-market product or service (by serendipity it can be, but probably won’t), and yet still has lessons for bringing to market.

So, is there anything distinctive in how my case studies were carried out? The identification of cases can be done by case screening. Screening involved identifying several promising cases and excluding those that were impractical or more difficult for various reasons. The first case, the *sysmä*, was identified from YLE reporting before I began the PhD and the related research. Subsequent cases were selected by convenience sampling (Etikan et al., 2016; Teddlie & Yu, 2007). Such serendipity came about as I had considered innovations in financial and rural situations, e.g., discussions with Molly Scott Cato (green economics / political economy / rural economy) (Scott Cato, 2022), Jem Bendell (rural sustainability) (Bendell & Read, 2021), Matthew Slater (community currency systems) (Slater, 2015), John Rogers (community currency implementation cases) (Rogers, 2013), Jeffery Smith (Geonomics) (Smith, 2006), Clive Lord (Citizens Income / Universal Basic Income (UBI) (Lord et al., 2011), and Dante-Gabryell Monson (nomadology) (McCarthy & Monson, 2010).

The criteria for exclusion of cases were cases described in the scientific literature, e.g., Calgary Dollars (Mascornick, 2006); or those undergoing current research e.g., Hudson Valley Current (Ussher et al., 2019). I tried to avoid cases that were not linguistically accessible, e.g., the Japanese Community Currencies (September, 2019), and those that were not culturally-geographically close to where I am. I rejected Africa, though monetary innovations are present, (e.g., Ngugi et al., 2010; Ussher et al., 2021), and East Asia where I knew of none.

Across the world, there were cases that were not possible to develop as subjects of study. I looked at Costa Rica (SunMoney, and the Reconomy Global

Cooperative (Kennedy et al., 2012a:192), Colombia (Barichara Regeneration Fund (Veselovschi, 2022). In Europe, a project in Portugal (Moreira et al., 2018) and Le Grand Jeu (Bonelli & Rovida, 2020; Petz et al., 2023), which along with two other possibilities; an Italian-Croatian-Dutch community currency called CommonCoin (Bassetti et al., 2019) and a hemp-based business currency idea did not make it into the thesis. Some of these were not developing anything I could research or seemed at a phase where it was unclear how they could be researched at the stage of research I was at. Likewise, cultural changes toward a cashless society (Wolman, 2013), and the reduction or extinction of many CCs meant they could not be researched. A dearth of cases was the situation in Finland with many time banks stopped or moribund; and artist money / vouchers, though I held a workshop in Pispala to explore the possibility.

Several subjects are appropriate for this research. For example, the flows of different capitals concept from the MetaCurrency project (Brock, 2014; Wagter & Russell, 2016) led me to consider NomadTown as a viable case study (Article IV). NomadTown's connection with community currencies was not obvious until I studied and took part in action research (Carson & Sumara, 1997; Reason & Bradbury, 2008). Likewise, originally the VTS points system (Article II) looked like a simple voucher system, and that it was moving toward simple discounting of property rents over time. A closer examination only occurred as I was living in a VTS property and using the system. BookMooch (Article II) could easily be excluded, based on how it functions now rather than the way it did function.

The Neco and its Neocracy system (Article III) might be excluded for several reasons. The founder's focus was on urban rather than rural people – although his focus only became apparent during the research; the geographical distance from Finland – but not cultural; that it looked like a cryptocurrency akin to Bitcoin (Nakamoto, 2008) – which was not the focus of my research. That it is not a crypto (strictly a cryptocurrency can include any aspect of cryptography and so it meets that criterion) or in fact on the blockchain, although culturally close to many of the ideas that these two concepts embodied made it of interest. The research done on the Neco touched on the core alternative politics and philosophies relevant to small communities as typically found in rural areas, which community economics research is about.

There is a technological aspect revealed and made starker during my research. When I started, the idea of cash money and small-scale schemes run by semi-volunteers seemed reasonable. The Cyclos payment software existed with superficially many schemes around the world supposedly using it (Höllhumer & Trukeschitz, 2016). If the schemes were not using Cyclos, they would at least be active enough to mean investigations would be fruitful.

During the research, even during the data collection phase, it became obvious that the move to cashless societies and the development of apps, cryptocurrencies, and legal framings made such possibilities less and less viable. Antoniadis et al. (2018:211) highlight that “standard crypto currencies like Bitcoin do not support community building. Instead, they are designed to replace the critical trust-building process through social and other interactions with

cryptographic algorithms and machine intelligence.” Law changes both enable and disable, with regulations around financial security, privacy, data protection, money laundering, and taxation all having impacts on community currencies. Even more so, such changes affect what is culturally acceptable as well as reflect changes in society, which makes older schemes appear outdated, and they often become moribund or shells of their former selves (Greco, 2009).

It is through case study research that community currency systems were most usefully explored, as the social components needed to be included, and not just a reductionist technical view of mechanical functioning. A community of users needs a community-based research approach.

Much of the data was available through interview techniques. I prefer semi-structured interview techniques (Gubrium et al., 2012). Additionally, the lack of good theory and framing made a broad sweep of the net better than a limited, wrongly directed, narrow-cast attempt. Consequently, both unstructured and highly structured interviews were avoided. In most cases, difficulties accessing econometric data prevented me from carrying out a more econometric analysis. A notable exception is BookMooch, where much data remains freely available.

5.3 Artistic Research Methods (ARM)

What are artistic research methods? Surely, there are only research methods that can be purposed for research in the arts or sciences, as appropriate? What makes a technique an artistic or a scientific research method?

It is not enough to be researching for an artistic purpose to earn the label of ARM. It is not the purpose, but the praxis and mindset behind the research that makes it an artistic research method. Collectively, we can argue these methods make a methodology, and the one practicing ARM methodology must ideologically be an artist. Negating that argument is that both scientists and artists use writing technology to express themselves. Use of a word processor does not make it a scientific rather than an artistic process. Hence both scientists and artists can practice scientific or artistic methods in what they are doing.

So, to turn to science and social sciences, then artistic research methods are apposite to community research due to the desire to explore a social system, from a disciplinary base evolved from a trans- and cross-disciplinary background. Its complexity can best be interrogated via complex tools and methods.

The selection and application of these is an artistic process. Learning the art or artisanal skills to design and apply the appropriate social technologies is part of the pedagogy of scientific education. The artistic philosophy of asking questions requires an artistic approach. Understanding and answering requires a scientific one. This 2-ended process of asking and answering, holds both in an interaction that forms a dyad, the question-answer dyad.

By executing that question-answer dyad we operate within the ARM paradigm. I described ARM and its praxis in my master’s dissertation (Petz, 2017a:70-73 and 73-76 respectively). Subsequently to that research, I continued to

develop, as has the literature. My further development happened at Field_Notes – Ecology of Senses in 2018. Field_Notes is a frequent transdisciplinary gathering organized by the Bioart Society at the Kilpisjärvi Biological Station.

At that research station, small groups explored different topics with a group leader, and the whole endeavor was coordinated by a Second Order¹²³ group that interacted with the groups to keep the general theme connected. The Field_Notes is process-oriented, with non-determinate outputs, though commonly publications, exhibitions, or future professional developments result. It is greatly within the tradition of an art colony, though focused not on painting nor literary output, but encompassing a wider range of artistic and scientific areas.

Publications exist in journals and theses by those carrying out work with ARM. A notable book is *Art As We Don't Know It* (Berger et al., 2020). That book explores the future trajectories of artistic research and scientific interactions. It indicates artistic research often developed from phenomenological approaches, traditional artistic praxis, and is often considered artistic practitioner work.

Those practitioners aim to be experiential in praxis. Rather than the technology-driven approach of applied scientific research the outputs are an artistic product, but not in the narrow sense of a marketable service or product. The product can be a (self-, societal-, collective-) transformative-, emancipatory-, or educative- experience rather than an artifact. Thus, “artistic research [is] seen as a mental process, as an act of transformation or transgression of mind” (Sava, 2006). The aim of questioning is artistic production – not necessarily answering with a market-related product as applied research and development (R&D) often does (Kenton & James, 2021).

We can go beyond the metaphysics and philosophy that comes through ARM praxes, where positionality and framing are important outputs by themselves. The work of Andrew Paterson includes a concrete application of ARM, the Alternative Economy Cultures seminar¹²⁴ which helped to create context for the Suomenlinna island currency endeavor (Aubret et al., 2014). Paterson's wider praxis is forthcoming as his PhD dissertation, “Autoarchaeologies”. My work on *Wheels of Resilience* (see 3.2 Rural Renaissance, Resilience, Regeneration, & Renewal) used the Pixelache Platform, to share and build collaborations, which depend on ARM.

5.4 Ethics & Data Protection

When I began my PhD research, I was aware there could be ethical implications for how and who I researched with. So, I followed the Manifesto of Ethical Applied Development Research Principles (Petz, 2014, 2017b) based on a review of various ethical practices. Data that would be gathered, stored, and processed

¹²³ Second-order is a term from cybernetics, see Kline (2020) for details.

¹²⁴ https://www.juhuu.nu/pixelache/2009/page_id_761.html

would need appraisal and curation. It seemed that much of my data was not sensitive data, so that no deeper ethical oversight was required.

I became aware of a case of serious scientific misconduct by a right-wing member of a neofascist political party (Wall, 2018), and broader tolerance of racism within the student system by the University of Jyväskylä was implied by the media. The University's response seemed weak. No action was taken on the misconduct, and no communications were sent to me about these issues, even in subsequent courses I took around ethics and data protection at the university. It seemed there were non-existent or poor protocols being used by the University of Jyväskylä, though I did verify what I did with the supervisors of my research. Consequently, I created my own data consent forms and used the protocols I felt were just for data management. These respected the concept of data sovereignty, where I am a custodian of the data, yet others have the right to representation and presentation in connection with that data. Data so collected was not shared beyond the point of publication, was anonymized, or credited as appropriate, and then destroyed after publication.

Interviews were conducted using a recording device only for use in the project. Work was processed on a laptop dedicated to my research work. As I was unaware of open data repositories and how to use them, none of my collected data was made available for others to use in their research. I now share information about the possibilities for open science with the students I supervise.

During the research, the institutional environment began to change as the General Data Protection Regulation (GDPR) of the European Union¹²⁵ started to be implemented. I followed the recommendations and requirements according to my institution and the law as far as I was aware in the light of these regulations.

Ethics for me extend beyond just the research project. They are relevant for applications, project work and interactions with others on a professional basis.

5.5 Action Research

The instigation of "action-research" as a methodology came from Kurt Lewin (1946:35) who was seeking "an integrated approach" (36) to the social sciences and "The Function and Position of Research Within Social Planning and Action" (37). Lewin developed his approach from his field theory, which took an integral approach to the nature-nurture debate (Bognor, 2017; Lewin, 1948). Further developments saw the participatory (Freire & Macedo, 2000; Lagae, 2012; Reason & Bradbury, 2008) and collaborative (Chambers, 1994; Lagae, 2012; Liamputtong & Rumbold, 2008; Schusler et al., 2003) aspects added to the name, though the basic methodology remains the same; to have a reflexive interaction between researchers and practitioners.

¹²⁵ See <https://eur-lex.europa.eu/EN/legal-content/summary/general-data-protection-regulation-gdpr.html> and <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=LEGIS-SUM:4374552> for details on the laws.

To me, the nuances behind these names seem to be more semantic than of substance. While I concede that individual practitioners of action research might want to emphasize certain elements of their practices, the significant core remains in common. Action research is carried out with a community or a group rather than with an individual. It can be carried out by an individual or by a team. There is always an element of teamwork in science that has an institutional background.

I was asked by Teppo Eskelinen: What could we use a community currency for in the university? While there are many things (in short, anything any money can buy), the answer comes from the question: Where is time, money, some other capital, or resource poorly managed or in short supply? Can it be applied to mobilize resources? There are places where application is useful; proofreading, peer review, computer support, interdisciplinary work, in-house learning, and the reduction of emails are examples where an accounting system with a reward system based on a community currency that valorizes such gig work could be usefully applied. Any economic transaction is amenable to nudge economics (Sunstein & Thaler, 2021) and a community currency could be introduced into a system that needs nudging toward greater cooperation or behavioral change.

My research was undertaken with the hope that it could be applied. The projects selected (see Table 3: Action Research & Projects) were part of existing social systems with the potential to be improved by research findings or findings transferred and applied in new projects elsewhere. The aim was to be useful in the Finnish rural context. It is debatable how far those aims are met.

Deeper issues remain in achieving action research. The society I live in does not value a lot of community work; it is not structurally familiar to many. They want an activist, or a volunteer, who works without pay. If there is pay, then a different, more difficult relationship can result. How am I benefiting: What's in it for me? And what's in it for them? How committed am I? Am I just using them? Who is paying? If there is money, why should we waste it on research? When action is not community generated questions of agency are raised. Who is doing this - us or them to us?

These questions are not easily resolved without time for trust-building. Even then, a personality clash or varied ideological framing makes action research harder. Prior experiences and prejudice affect framing, but so do a fundamental questioning and a desire for justification in familiar terms (Ward (1996 [1973]:27) explores this incommensurability of thinking re anarchist "direct action and autonomy" compared with "an authoritarian and centralizing frame of thought" and the consequential action or in action).

An availability heuristic, that may be unspoken, affects others' perceptions. So perception manifests affordances into reality, and the opening up of perspectives has to be created. Other things are needed for effective action research than just awareness of framing incongruence; the social technology of deep hanging out (Geertz, 2000) helped me achieve potential by building congruence through shared narratives and experiences.

Table 3 Action Research & Projects

Project	Status	Action Research Applicability
sysmä community currency	Defunct	The sysmä currency stopped, partly for political reasons, and partly for capacity reasons. Thus, action research has no potential here. During my research, I went to planning meetings and assisted with a survey of currency users. I asked questions about development and rurality when deep hanging out.
VTS points system	Vibrant	The points system has become more pervasive in the social housing sub-culture. The magazine <i>Asukasviesti</i> [Residentmessage] promotes points usage, and the system is popular with residents, who do use it. That community is extending usage into a wider range of capitals, e.g., natural capital via a VTS-Ekotiimi [VTS-Ecoteam], supported by the NGO <i>Moreenia Ympäristötietokeskus</i> [Moreeni Environmental science Center]. I share my wisdom as part of the Ecoteam. Technology transfer of the points system to other communities is viable. I gave counsel and discussed options with users in my research.
BookMooch	Moribund	The potential for action research is present. There is presently little interest from or incentive to motivate active members of BookMooch. Power relations are a factor in member apathy. The lack of a democratic way for ordinary members to be active and the power control held in the hands of the founder is a block to involvement. It is unfair to paint the situation as solely due to founder's syndrome (Ceaser, 2018). The institutional factors and generational changes in wider society must be considered too. The digital revolution, which initially facilitated BookMooch, and thus the involvement of members with an activist bent, has continued with further societal-technological change. A more digitally literate population can access digital books and e-readers and so use BookMooch less. In my research I saw active user engagement, suggestions, and interactions with the founder and other members of the scheme.
BookCrossing	Vibrant	There is a strong potential for action research within BookCrossing. As it is based on a gift economy (books are given directly as "a controlled release," considerably left in specific locations (such as cafés, free tiny libraries (Snow, 2015), communal property shelves) or are available for borrowing (via personal bookshelves directly) and not sold in the main) macro-economic conditions only partially affect it). My research consisted of taking part in the culture and asking others questions around usage and potentials.
Neco community currency	Vibrant	Action research is possible as the vision looks for a major transformation of society. That the prototype is moving toward early-stage adopters shows potential for more to happen. The financial underpinning was successful. The social impact is muted due to various factors – mostly the

		<p>cautious growth strategy. Some aspects of service matching are missing.</p> <p>Politically the power is currently exercised through a mechanism called Collexa, but Collexa is framed around questions not set by the user community. It could be so framed, and the active involvement of holders of Neco will make a difference. Action research on the sociology and political exercise of power here can be valuable. My interactions with others, notably the principal informant during research and subsequently prompt possibilities.</p>
Bali time currency	Vibrant	I am unconnected with any Banjar system to evaluate how it is situated in its current manifestation. My research was not action research.
Resilience Hub	Vibrant	<p>Many action-research approaches are applicable to resilience hubs. Power dynamics are arranged around encouraging self-actualization and involvement. The hubs attract the curious and those open to learning and networking. There is an experimental approach, a pragmatic practicality, and a prepping culture open to co-learning approaches.</p> <p>Economically, the flows of different capitals are conducive to giving and getting, which action research relies on.</p> <p>NomadTown is open to collaborations, as is the association behind it. More than merely being open, it needs a proactive effort to reach out to potential partners.</p> <p>NomadTown is principally a prototype, and needs further collaboration as action research or with other, currently, less involved parts of the quintuple helix (see Article IV for details). It is cheap to run NomadTown, but its small scale means it appears as a hobby or vanity project. Moving beyond founder's syndrome is possible with a networking plan. Currently, there is no concrete strategy (only wishes) for active network development. If the founder (Middeke) left NomadTown would collapse.</p> <p>Internationally, ECOLISE shows hubs fulfilling transition functions are viable (Henfrey & Giangrande, 2017). Resilience Hubs are not effectively networking for transition.</p>

Based on the above analysis, there are advantages to an action research approach. Several projects can be investigated with sufficient rigor to benefit the projects and identify opportunities for deeper development for research purposes. Some of these projects benefited, yet only a little, from action research.

The *sismā* was assessed scientifically, and policy decisions were informed by that assessment and interactions. The VTS points system has benefited from an ongoing conversation with VTS workers, residents, and NGOs involved in the sub-culture with commitment to initiatives in the community. BookMooch has seen more books exchanged and was compared with BookCrossing. BookCrossing benefited from users of BookMooch being able to better evaluate which service they want to put their energy into. The Neco development was

informed about limiting aspects of its functioning. The Bali time currency is not evidenced to have meaningfully benefited from the research carried out on it.

The Resilience Hub NomadTown and connected association gained significant benefits from assessing and realizing a future strategy is needed. Creating that strategy and implementing it can usefully happen with action research. Without action research, it is doubtful such a process will progress far. The research has led to deeper connections with others. NomadTown itself has benefited from my support and involvement.

Other benefits spill over to the Credit Commons Society, wherein I am the link between the Action Research Circle and the Comms Circle. We support projects and conferences, for example Bristol Pay (Petz & Finch, 2023).

6 POLICY IMPLICATIONS

In Chapter 6, I give a brief overview of the Finnish institutional environment, outlining some of the peculiarities around the concept of the welfare state in Finland. I cover the development of social provision from its historical origins before continuing along the trajectory we are on now. I indicate some potential problematic practices found in policy circles. I explore some ideas for bioregionalist policy. I propose, with an analysis of unemployment and homelessness, how the more universalist paradigm might be brought to bear in other application cases. I suggest universalism in the form that Housing First takes (as objective first) is particularly applicable to the rural environment in light of Dower's New Paradigm.

6.1 The Institutional Environment in Finland

The evolution of welfare provision in Finland can be traced back to the 17th century, when, as a Christian country under the Swedish crown, the power of the Lutheran church began to be eroded by the reach of the sovereign. King Gustavus Adolphus made substantial changes in the machinery of government, with concomitant effects on education and poor relief (Roberts, 1992). Back then, during the Swedish Empire era, the social sphere, as distinct from the market sphere, did not exist.

Subsequently, the scope of what we might regard under state social provision has gradually widened at the expense of the family and community. Despite there being no clearly agreed standard over the centuries as to what is included in the social sphere; we can consider education, health, elderly care, and taking care of the poor as falling into the social domain¹²⁶. Whereas defense of

¹²⁶ For example, childcare can be considered a normal part of the family and not of the social domain. Yet, in Finland, many women go to work even though they have young children. Generally, men do not look after their children instead, so a childcare profession and the

the realm, stability of the currency, and even food security (the first duty of any government is to ensure its people are fed) of the nation fell to the monarch.

After Finland was ceded to Russia in 1809, the process of the secular development of social care accelerated as, over the 19th century, currents of values from other sources (see Sinnemäki et al. (2019) for the relevant religious influences and developments), notably, pietistic revival movements (Mangeloja, 2019), shaped the relationship between *esivalta* [higher powers] and the law (Huttenen, 2019). Simultaneously, as the nation-state developed, a different way of relating to its subjects emerged. Subjects became citizens with citizen rights and responsibilities.

Moral communities (Durkheim, 1912) were set on a path of supplantation, and the direction of travel would eventually lead to the separation of church and state¹²⁷. Under Russian rule, the care of education, the poor, and health services increasingly fell under the remit of the state. We could describe this process as the emergence of the *Rechtsstaat* (Pihlajamäki, 2011), as laws and standards began to result from the growth of the market economy as distinct from the mercantilist one.

This context removed the agency of moral communities, and after Finnish independence in 1917, the ravages of rational modernization on the welfare society set the landscape for the welfare state to be seeded. Welfare implementation occurred via a bureaucracy as a social technology (the mechanics of administration) that increasingly individualized and standardized the people of Finland.

This alienation from self-provision, which began in the 19th century, has led to the welfare state rather than the welfare society. The distinction being a process of acculturation, where the state took care of things via jurisprudence and laws, rather than people taking care collectively, within their own societies, religious groups, and associations (see Article IV for an exploration of the social ecology of associations in Finland) via social practices, see Eräsaari (1993) for an exploration of the 'acultural' and 'cultural' welfare state ideas.

socialized institution of care have developed. Thus, childcare can be considered part of the social domain. Going even further, we have the concept of such social provision only as a narrow aspect of the welfare state. "The welfare state has been approached both narrowly and broadly. Those who take the narrower view see it in terms of the traditional terrain of social amelioration: income transfers and social services, with perhaps some token mention of the housing question. The broader view often frames its questions in terms of political economy, its interests focused on the state's larger role in managing and organizing the economy. In the broader view, therefore, issues of employment, wages, and overall macro-economic steering are considered integral components in the welfare-state complex. In a sense, this approach identifies its subject matter as the 'Keynesian welfare state' or, if you like, 'welfare capitalism'." (Esping-Andersen, 1990:2).

¹²⁷ Disestablishment continues; for example, certain religions are hampered by the Finnish state; the Christian cross is still on the flag; and schools dictate the religious education for their pupils. Specifically, they required a proselytizing religious education and not for a small group to decide their own way. In contrast, 6 children who find a teacher get supported native language lessons for any language, e.g., <https://www.tampere.fi/en/education/basic-education/studies-basic-education/multilingual-pupils/teaching-pupils-native-language> 65% of the population identified with the Evangelical Lutheran Church of Finland in 2022, source: https://tilastokeskus.fi/tup/suoluk/suoluk_vaesto_en.html#structure

The Finnish welfare state (see Kettunen (2019) for a review of the term welfare state), which was strongly influenced by agrarian and forest-industry-related aspects (Kosonen, 1993), then developed (from the 1950s, according to Kettunen, 2019) into a Nordic welfare state (see Kangas (1993), who argues the culmination of the process was in the 1980s-90s). In recent times, the Finnish Nordic welfare state¹²⁸ has followed a process of European integration and has moved in the direction of German welfare corporatism¹²⁹ (ibid.). While European integration and harmonization have not ended (Ćapeta et al., 2022), the political classes have had an awakening of environmental consciousness supplemented by an adversity stimulus from the COVID-19 pandemic. We are now faced with the force majeure of climate change. That is a watershed in terms of our conscience, and the European welfare state shall move in the direction of the resilience state¹³⁰.

Recently, the resultant policy framework from the awakening began to go forth in Finland as the Sustainable Growth Programme for Finland: Recovery and Resilience Plan (Authors et al., 2021). That plan has four pillars:

1. **A green transition**, which is reflective of a Green New Deal (see Kedward & Ryan-Collins (2022) for an exploration of the term). This green transition “to be the world’s first fossil-free welfare society” (Authors et al., 2021:27) is part of the great transition from fossil fuels to renewables at its simplest and, at a more complex level, a whole-scale transition towards a circular, localized economy that touches on housing, retail, manufacturing, and transport.
2. **Digitalisation and the data economy**, a digital agenda encompassing quantum computing, AI, G6 mobile communications, and electronics.
3. **Raising the employment rate and upskilling** for sustainable growth.
4. **Health and social services reform.**

Resilience is partially encapsulated in the pillars, yet it could be developed toward a more inward-focused direction and less toward the neo-liberal capitalist viewpoint. Nevertheless, the legacy institutions that shaped the welfare state will try to implement the plan. The aim is a “carbon-neutral welfare society” (Authors et al., 2021:8).

The English name includes “Resilience Plan,” yet in the Finnish language version, any notions of resilience or rural aspects are discarded (Authors et al., 2021). Sadly, the New Paradigm for rural development is not the dominant way

¹²⁸ I and Kangas follow Esping-Andersen’s (1990) models, which generalize the Nordic or Scandinavian model as having universalist social provision and are social democratic compared with the German statist-corporatist model with social provision via worker-derived rights. See Esping-Andersen (1990) for details on the models, attributes, and limitations.

¹²⁹ Much inspiration for the Finnish welfare system came from the UK. Its welfare state has also undergone change (Grand, 2003). The German system is threatened with radical change (Miegel, 2011) so we must look into the past for their influence on Finnish praxis.

¹³⁰ So I conceive of an arc of history making a general trend from the Ancien Régime of absolute monarchy to the Rechtsstaat, to the Welfare Society, to the Finnish Model Welfare State, to the Nordic Welfare State, to the European Corporatist Member State, to the Resilient State, which if it operates more locally and regionally (as the corollary of the localized circular economy implies) will be a Resilience Province.

of thinking, and such thinking is not evidenced within the plan. Where the rural is mentioned, it is more to point out problems and past funding than anything new.

Old-fashioned thinking, which is not innovative, dominates that plan. The Finnish plan focuses on technological innovation in a very narrow sense rather than supporting a broader innovation-fostering environment. The institutional framework around resilience is set by the EU and its member states, which, in combination, created it via their ruling political elites. Urban thinking, with traditional macroeconomic approaches, dominates the perspectives underpinning the framework and thus the plan. It is therefore important to consider additional framings and, thereby, apposite policy instruments as pertaining to the rural and local.

For example, responses to the coronavirus COVID-19 pandemic lockdowns and their resulting societal effects such as ‘building back better,’ ‘returning to normal,’ or ‘recovery’ are loaded terms, and along with ‘resilience,’ ‘sustainability,’ or ‘disruptive innovation,’ they are prone to lexical broadening, whereby they become functionally meaningless. They are used as nice, empty buzzwords (Loughlin, 2002) by politicians and public policy wallahs.

Without broader consideration, what is really intended by default is a return to ‘business as usual’ (BAU). BAU is not sufficient for the radical transition we need ecologically and socially. We need forward-resilience, which prepares us for climate change—the great transition. See Revell & Dinnie (2020) for a discussion of backward- or forward-looking resilience, which captures these two perspectives. Below, I discuss some of the implications within the reality of the welfare state—awful state—welfare society, and what my research suggests in policy terms in the vanguard of the great transition.

Resilience policy is fast-evolving; the European Commission’s Joint Research Centre states, “The Covid-19 pandemic provided a concrete situation when one should not try to ‘bounce back’ to the pre-crisis conditions. Transformative resilience calls for policies that facilitate bouncing forward towards a better and more sustainable pathway from an economic, social and environmental point of view.” That Centre also issued reports on the conceptual aspects of resilience and how to find or activate it in terms of policy or science¹³¹.

6.2 Implementation in the Resilience State Framework

Though the framework is crucial in shaping what the appropriate discourse for policy implementation is, custom and practice affect the implementation. When considering a matter of public policy, it is easy to fall victim to fallacies and biases, such as the availability bias (Barnes, 1984), where the familiar is privileged over the less well-known due to heuristics rather than a comprehensive policy analysis

¹³¹ https://joint-research-centre.ec.europa.eu/resilience/resilience-reports_en and the EU Science Hub https://joint-research-centre.ec.europa.eu/resilience_en

(Lindblom, 1959; Brown, 2012). Resulting misconceptions can lead to repeating already discredited procedures or, more to the point, inappropriate instruments that do not fit within a newly updated closer-to-reality-as-now framework¹³².

Though there are advantages to taking a considered long-term 'climatic view' based on experience, it should be tempered by a flexible 'weather view' that accounts for aberrations from trends. A combination of short- and long-term perspectives is adaptable, while being observant of broader policy implications. Multitemporal wisdom is needed for strategic thinking. Strategic thinking is needed for transformative resilience, where a society not merely reinforces the traditions and practices of the recent past, but takes an active approach to construct a new institutional environment and bring in innovation.

Broadly, we do need to consider a different policy environment. The contemporary arena must be redefined to place a greater emphasis on the natural environment. Redefinition means the following policy implications and suggestions must be considered in the framework of the reality we can expect in the near- to mid-term future, not the one we had recently nor over the last few decades. We are not in the Holocene anymore (Zalasiewicz et al., 2019). Welfare cannot only deal with the social domain as considered before. The welfare state has to expand even more broadly in the ecological direction too. We should plan for implementation for the resilience state.

By implication, CCs' purpose is to implement transformative resilience, whether economically, socially, or ecologically, in the broader milieu. Time series historical data can be used to evaluate how community currency schemes worked. A comparative analysis can be carried out, if sufficient longevity is found in enough schemes, e.g., the work of September (2019) in Japan. There is a danger that only successful ones are researched, and so stochastic factors for failures are not properly considered¹³³. There is a risk that what is available is only looked at narrowly.

Back prediction and data gap filling-in over a time series by awareness of drivers and fluxes might be used in these cases, as done in meteorology (Papale, 2012), forestry (Mehtätalo & Lappi, 2020), archaeogenetics (Schaeffer et al., 2021), forensic accounting (DiGabriele et al., 2020), or ideas from the archaeology of accounting (Hopwood, 1987; Mattessich, 1994), or perhaps in the vein of autoarchaeology by phenomenological use of absence (Seitsonen, 2021).

¹³² See Petz et al. (2023) for *The Perfect Village*, and *Le Grand Jeu* role-playing games where this bias was manifested by players. Brown (2012) points out that policy framing, within environmental planning, was deliberately led by mandate to exclude citizens with views that could counter such a heuristic. See Hall (2014:244) for an ideological policy example where "the urbanists... wanted to build new cities in open countryside, in which everyone would live in gigantic collective apartment blocks, with individual space reduced to the absolute minimum needed for a bed; there would be no individual or family kitchens and bathrooms. In one version, life would be regulated by the minute, from a 6 a.m. reveille to departure for the mine at 7."

¹³³ September & Kobayashi (2022) indicate that the failure to analyse failure means "theoretical saturation" is not achieved. Their paper details issues around researching CCs: difficulty finding unbiased research reports, not enough schemes, and taking into account socio-cultural factors. I add that a gatekeeper effect (Barzilai-Nahon, 2011) prevents making good economic data available to researchers. I had this issue, see 7.1 Accounting & Finance.

We can learn from accountancy, where the practices of management accounting and financial accounting (Atrill & McLaney, 2011:10–12) operate. Those quantitative data gap-filling approaches above deal with financial accounting and the numbers approach. For management, we need to have more descriptive, qualitative data that complements the numbers. Policy must adopt purposeful analyses to support community economic interventions to be fit for purpose. Yet there is a paradigm shift needed to operate bioregionally, which we must make to achieve forward-resilience. The shift has profound implications for data gathering, resultant science-led policy, and practices.

6.3 At the Bioregional Level

To think and thus act bioregionally¹³⁴ is quite alien to the way many people live today. Some think bioregionally, but ensconced within modern nation-state money relations, there are fewer and fewer taking such considerations. As fiat and crypto globalized approaches dominate, the place or usufruct of alternatives is harder and harder to find.

Watershed consciousness implementation is even more challenging. The implications are, to some extent, frightening and unworkable from other perspectives. How do you introduce a local currency that is effectively a special purpose money that can **only** be spent locally? Who would do such a thing? “It is no way to run something” and “a clown shoe operation” were comments made about the *sysmä* when limitations were imposed on the road communities, as to where they could spend their road repair funds (Article I).

If a hyperlocal system was introduced differently (say, as a collaborative process rather than by a progressive municipal administration, as found in *Sysmä*) and persisted, then locally produced economies would result (I do not go into the arguments here about regional, bioregional, and local scales as regards the functional mechanics to make such propositions viable). These economies would have a lower environmental impact, may be socially beneficial, and culturally stimulating. If you must pay someone locally, then the local money in the system increases, those who lack work get it, and the money relations and culture all change. For an example of how things changed the other way with the replacement by non-local exchange, see K. Polanyi (2001 [1944]). Restrictive money that builds local economic communities is akin to protectionism. Is local protectionism good for an area bioregionally?

Looking at Dower’s New Paradigm (Table 1: Summary of New & Old Paradigms Contrasted), local money rather than regionally controlled money is suggested. Sector-based money functioning through a network is a relevant proposition too. In some sectors based on local resources, there was trading in the form of barter. Commodity monies suggest barter is a viable local option (see Article II for a relevant discussion).

¹³⁴ <https://planetdrum.org/resources/> has writings and cases of bioregional practices.

This sounds like wishful CC evangelism: if this...; would have been...; possibly; and a maybe. Sometimes a change in economic relations has happened locally, e.g., Ussher et al. (2021) reported a move from exogenous goods to endogenous production in Kenya in rural and economically non-integrated urban marginal communities. Often it is a mirage practitioners see, until reality reveals it as illusory, i.e., theory predicts, and life fails to deliver. For example, in the Bristol Pound econosphere, where alternative supply chains did not develop for products like coffee and tea, that cannot be produced locally in Bristol's urban, economically integrated environment. Although an alternative consciousness emerged, the change hoped for was too radical¹³⁵ (Petz & Finch, 2023).

Community currencies can be seen as more than tokens (see the properties and functions of money in Article II), which by usage can reveal flows (see current-sees in Article II) to users. This community-educative (cf. consumer education for the same concept applied to consumers—here avoided due to the semantic field around the word consumer) aspect of their use should not be overlooked. To raise a watershed consciousness in a community, where there have been only neoliberal practices within the neoclassical economic paradigm, then financial / economic literacy can be gained through the use of a community currency.

Community-education may be deliberate. We do it consciously, and the community knows what we are doing, e.g., in an intentional community; see Article II and Article III. Current-sees, when implemented as policy, demonstrate, and expand consciousness around broader community economics and can sensitize stakeholders to what we are doing. Alternatively, wisdom may be tacitly gained from experience in a gestalt process (M. Polanyi & Sen, 2009) and lead to different money relations, with the origins later forgotten in the community of use; though the practices and beliefs have changed, as seen with other money usage (Gómez & Dini, 2016).

If there are more or different kinds of money available to be spent locally, does that damage, or improve the environment? Do locals care more and have the means to take more care? Or will increased purchasing power facilitate capitalism, with users spending money outside the system and engaging in damaging trade, e.g., longer trips carrying out damaging long-distance tourism? How about if the money is a community currency that can only be spent in certain places? We see a model by looking at the medieval system of payments around church-building, where some money (merels) was locally provided for artisans to buy victuals (Kokabian, 2020), while more distant, larger-scale trade used gold. Community currencies can have this alternative building function locally and more distantly.

Fundamentally, we need to think more broadly, not in purely abstracted financial terms of money and money proxies. We need to think beyond an economy to think of an ecology. An ecosystem. The narrow economy is only the management of a place; an ecosystem is the whole system of a place, which

¹³⁵ It is difficult to get businesses to change their supply chains. The Bristol Pound CIC found that change was a risk and an expense that small businesses did not want to take.

considers the cultural evolution, financial arrangements, ecological natural endowment, and a larger variety of capitals and how they flow. We need to think of the policy implications of them entwined in synergy to take practical action in policy implementation.

Such a conceptualization extends beyond one community or one village. If we think of medieval monasticism (Arx, 1987), or the network of the church in medieval Europe, and how they led to a transformed community we have a model on the scale of what we can achieve. A villagization is possible with emergent properties and flows manifesting a quite different ecosystem. Villagization may arise via a second-order process (Kline, 2020), or be consciously engineered.

How we might manifest transformation is covered by the idea of a group of different strands coming together to weave a new reality (see Article IV). This engineering, weaving approach can be done with bioregional learning centers, or, in my view, hubs (Article IV). There is not a network of hubs operating this way. Who and in what way could weaving be developed? is an open question. Though Brewer (2021) is attempting to weave in Barichara, and eventually the whole world. Can the third sector do it? For example, ECOLISE (Article IV), which created some national-level hubs and a network for transition, could attempt weaving. Environmental activists might move to this kind of civic engagement? For example, the third wave of the climate justice movement, which I call the Climate Anxiety Movement (Weston et al., 2021) and includes some scientists, could potentially move from political advocacy to community building in the face of democratic failures, much as the Chartists did (Finn, 1993).

Does it have to be a state partnership? (e.g., the EU Resilience Plans mentioned above). Policy can prejudice one direction, but in a revolutionary way, it does not only have to come from the state (the first sector) or even from businesses / corporations (the second sector), as in much of the 20th century. The community (the third sector) or even citizen power are possibilities, e.g., global service learning or global citizenship education, as the UN aims for (Article IV).

6.4 For the EU Level

The European Union has many possibilities to enable capital flows and adopt alternatives to make use of rural potential. Specifically, the EU's many programmes reflect the increasing range of policy areas covered (cf. Blair (2010) for a recent history), which can be flexibly adapted policy instruments as appropriate technology (Lodwick & Morrison, 1982) for rural development. Investigations around blockchain technology, structural funds for supporting change in rurally isolated or other disadvantaged areas; youth programmes that allow rural cultures to be supported, and so on, can be purposed for rural development in ways they have not. Creative capacity and awareness are needed to activate this potential in service providers, service users, and agents of change (associations, local governments, small businesses, etc.).

In many funded opportunities some groups take advantage of and maximize their chances, even with innovative, creative uses. Other groups with more conservative approaches, for political or cultural reasons, do not benefit at all. For example, funds for innovation in rural areas used for the agricultural European Innovation Partnership (EIP-AGRI) network that facilitated applications to be made from each country to support forest peoples and rural areas (EIP-AGRI & andres, 2016). Greece recognized the supportive potential and institutionally facilitated widespread adoption, with 435 potential projects (Operational Groups) supported (EIP-AGRI, 2016:4). Finland limited the opportunity to large concerns, thus allowing regulatory capture by paper manufacturing conglomerates, and ensuring only 10 projects were applied for.

Is the EU an industry-dominated and focused organization? Psygkas (2017) analysed EU praxis and posited, rather, that the EU is engendering change via the emergent property of interaction with nation states. Though it is the member states which decide how money is allocated, the EU does as an organization standardize in a culturally excluding way. The viewpoints and operations of EU culture come from a culture of civil service as promoted by the Collège d'Europe. That culture, which provides the *dispositif* from which EU policy largely developed, is grounded in the Benelux-France-Germany axis of banking, *high-finance* and governance.

There is a desire (at the EU level) to use the threat of “financial conditionality¹³⁶” to drive national reforms through resilience plans (Bekker, 2021). It would be better if, rather than paper-tiger plans, the EU enabled local democratic structures, like people’s assemblies or other social technologies, to boost diverse and better community-oriented thinking.

It is here where ideas around community currencies can be useful. Rather than a single currency (the euro), and flows of capital (fiat) being how the EU operates exclusively, it can be with diversity that other capital flows are stimulated as policy instruments. Aspects of currency plurality were talked about with blockchain¹³⁷ (e.g., Sierra (2016), reports “local currencies”). The EU has funded community currency research, notably the People Power Money book (Bindewald et al., 2015) which was the result of the Community Currencies in Action project, which was “launched in 2011 to demonstrate the potential of currency schemes to a transnational audience of policymakers, governmental agents and the communities they serve” (ibid.:39).

CCIA’s research output was addressed to the people and communities as practitioners. It does not deal with the institutional policy framework needed for European-level policy creation or setting a pro CC monetary policy, for example via a directive or pan-European intervention as part of a funded implementation programme. It would be good to see community economics given the same kind of funding as the EIP-AGRI programme had, to support Operational Groups for

¹³⁶ See Conzelmann (2022) for conditionality and softer EU mechanisms’ efficacy.

¹³⁷ <https://digital-strategy.ec.europa.eu/en/news/eu-funded-projects-blockchain-technology> lists projects where by 2021 “Already EUR 180 Mio of EU Funding [had been] Spent to Support Research & Innovation in Blockchain” and “300 to 400 M€ of investment by the different Venture Capital funds” is to come.

projects around alternatives. Clear communication and better use of the marketing mix might get more uptake for such a programme, but more is needed. A simple mechanism, by which any opportunity can be applied for directly to Brussels without having to go through a national agency would facilitate early adopters and innovation. An enabling approach could be directly applied to fintech for forward-resilience in local communities.

Other communities of interest could be targeted too. The opportunity to link different kinds of learning to tokens and documentation of those via chains (holochain, blockchain, and related technologies) is poorly realized. The EU can set standards for implementation within the education sector, the business community, and personal domains (which it is lethargically doing). Information storage and authentication are useful to all. How about economic aspects of special relevance to rural areas?

Rural specificity is possible within productivist economies. Terroir-related foods could have authenticity information stored and used in such a way. By linking places and peoples, various kinds of tokens might be valued differently or have different spending powers in rural areas. For example, the costs of fuel in rurally isolated areas could be subsidized, leading to a fairer ecological transition from fossil fuels. The Mouvement des gilets jaunes highlighted the unfair fuel-tax policy for rural versus urban areas as an issue (Léger, 2021).

If a token system were applied in a way so that rural token holders got fuel at a cheaper rate (which happens with red diesel for agricultural areas), we could issue such tokens as a community currency. Tokenization for rights to resources is possible in many cases, as the VTS demonstrated with its points system giving access to painting and decorating affordances (Article II).

Tokenomics has political implications too. Solidarity is built, there is improved public support for interventions, and change is made politically viable with a good design. The EU has introduced programmes such as Erasmus that deeply changed the perspective of society toward volunteering and non-formal education (Navracsics et al., 2018). Erasmus has created knowledge alliances, increased mobility, and recognized via the Youthpass linguistic and non-formal education competence. It supports mobility and employment for doctoral researchers and others. It is an ideal platform for a CC-based tokenomics.

Similarly, grants can be targeted to facilitate the development of rural community currencies, where the grant is only spent on the designated use. Leakage¹³⁸ is inevitable, but Sysmä's vouchers given for road repairs, which could not be spent with outside providers (they would not accept them) (Article I), can be replicated in other cases where it is desired that subventions are not diverted to other purposes. The designation could be applied to funding nature-protected area developments such as biosphere parks or nature preserves connected with tourism. A mechanism is easy to envision; e.g., access to Venice

¹³⁸ Leakage is from the local economic system. So that the money in question is no longer flowing. The effect of such leakage is to diminish the multiplier effect and the volumes of money in the virtuous circle, making it less virtuous and even vicious. Cf. Wright (1956) for a review over leakage and the multiplier effect.

has resulted in a 10-euro tourist charge and if that money were to be spent as hypothecated¹³⁹ heritage-related payments, it could be used in such a way.

A common scheme in a rural area could use micro-charging (Spiller, 2002), e.g., for use of wireless networks, and then the micro-revenue profits could be used to fund services in a rural area, apropos infrastructure for the wireless networks. Such *hypothecation* can be implemented by the required purchase of access tokens, or a more general funding is possible, but less transparent regarding the flows and charge amounts.

It is in standard-setting and protocol-development that the EU can be most useful. Such projects, if run as innovative prototypes, can be more widely disseminated when they have legal and cultural support, which the EU level can give. In the past, the EU had the utopian Lisbon Agenda, i.e., Working Together for Growth and Jobs (Hemerijck, 2022; Stieber, 2006). In the future, why not an agenda for distributed populations and resilience?

Achieving flows at a network level requires an infrastructure and institutional standard setting. The space of flows hypothesis (Castells, 2020) manifests for information flows and can be extended to other flows (Article IV) by the EU standard setting. A networked, resilient EU is not one that is thinking about bespoke implementation for each nation state. I do not deal with the incommensurability, subsidiarity, or sovereignty issues thrown up by this contextualization, I merely point out that a different logic operates than the individual member states may adopt within their own societies and countries.

6.5 From Welfare State to Awful State to a Resilient Society

While the 20th century Nordic welfare model has become legendary, there are some learnings that the legacy systems that remain can teach us. The idea of universalism has not been achieved, though it is still strived for. The liberal representative democracy now driving change tried to capture the spirit of progress as a welfare state. Yet today it acts in a way that, instead of building solidarity with the citizens, excludes and alienates people from taking action participatively in the social domain. To move toward a resilient society, a more participatory community-based approach offers an alternative.

While theoretically we have more democracy, there is less meaningful engagement with some of the issues and certainly less innovation around them. For example, the Finnish KELA basic income experiment (Kangas et al., 2021), which was hobbled by central government active model reforms. Together, they

¹³⁹ Hypothecation has different meanings in investment and taxation use. Here, I mean tax hypothecation. "A hypothecated tax is one whose revenues are earmarked for one particular purpose" (Grand, 2003: 150). In this case, a tourist tax is used for environmental and cultural heritage, which directly benefits the payers of the tax. Such a connection is not required, so the tourist tax could be used to pay for children's school meals, for example.

were awful attempts¹⁴⁰ to deal with structural unemployment (De Wispelaere et al., 2018).

Unemployment has resulted partially from the demographics of many baby boomers and not enough positions for younger generations; partly from shifts in globalized manufacturing industries, and in Finland, a destruction of local economies, e.g., the Tampere clothing industry; technological changes in the forestry industry, and in rural areas, the shift from a productivist rural economy.

There have been efforts to deal with unemployment in a universalist way¹⁴¹. The 275/1987 Työllisyyslaki [Employment Act] aimed for the state “to achieve full employment that secures citizens' livelihood, based on free choice of workplace and productive work.” However, later reforms eroded that ideal. If we contrast those efforts with a more successful longer-term endeavor to deal with homelessness policy, we see that the failures of state-based approaches are not universal and that a framing change can be effective.

With homelessness, the significant change happened after the 1960s. In the 1960s, homelessness was viewed as a personal failing, and it was felt that people so affected only needed a hand up to the first rung on the ladder, and then they could climb out of their situation by their own industry and desire; after all, they were involuntarily homeless and surely had such a motivation?

What changed was the recognition in the 1980s that people were often not ‘kotiton’ [homeless] but ‘asuntoton’ [houseless]. Consequently, short-term accommodation, half-way houses, and provision for staying somewhere to move on somewhere else later were abandoned. Instead, a new framing, of supporting people to move into a community and think of long-term residence was adopted. Simultaneously, housing standards were reformed, and better-quality housing was supported via legislative changes (Karkkainen, 1999; Pleace et al., 2016).

The changed perception allowed for a policy of Housing First in the 21st century. The model was properly supported with several programs, local interagency collaborative working, and funding (Kaakinen, 2023). Homelessness, in the traditional sense, consequently declined (ARA, 2022). There is still hidden homelessness, and life transitions are problematic for certain groups, e.g., young drug abusers, immigrants (Kaakinen, 2023), though not so much for middle-aged single men as in the USA (Brown et al., 2022), due to better alcohol abuser support.

The objective first approach has not been replicated with unemployment policy (let alone immigration and worker mobility). There has not been the recognition that a job is not a career. There has not been a career pathway guarantee and support, in the same way, to get people on a life-path (elämänpolku) that can deal with the issues of training, education, or finding a

¹⁴⁰ The basic income was set too low, with restrictive conditions. The active model copied from Sweden led to the most vulnerable denied benefits, and created more bureaucracy as money to replace the cut benefits came from municipal poor relief funds.

¹⁴¹ Universalism is usually taken to regard the citizens as all equal and getting universal provision, yet in the case of the 275/1987 Employment Act, the regional aspect was also recognized. Universalism in that Act supported a regional, more local development of communities and not only individualism with its expenditure.

career with rehabilitation support. Employment support is under-resourced, and the support agents are still locked in the welfare state – awful state mindset.

Such active model thinking (which cuts benefits from the unemployed on the basis that they have not found work) scuppered the chance of introducing a national basic income, even though “results [in Finland] show how a basic income increases all the relevant factors which are related to most social policy, mainly being employment, security and wellbeing” (Michaelsen, 2021:10).

An objective first approach (like Housing First) can reach the policy objectives of a fossil-free welfare society – a resilient society. By removing the conditionality, the policy can be supported locally with a partnership approach. Partnership models can come from the Finnish welfare state’s historical origins.

The coalescing of communities around social provision can be seen in the rise of militant worker relations in the late 19th and early 20th centuries. Then welfare development was part of an international phenomenon related to anarchist thought, labor, social democratic movements, and the waning influence of Christianity, prior to modernist rationalization. The origins were not created by benevolent leadership, nor the machinery of the centralized state, but by desires from below, expressed in the cries of the dispossessed, e.g., typified by the struggle against the patriarchy (see Article II for the city of Tampere that exhibited these features).

In this revolutionary spirit, we can detect the true heart-strings of the Finnish culture, grounded in rural ways of life. What is the relevance of this thinking for rural areas, with depopulation or related demographic concerns (most of Finland outside the cities) or community currencies, which is the focus of this research? The same kind of thinking about rural programs exists.

The approach to rural problems is embedded in short-termism, without a long-term strategic plan. We can look at VTS home points (Article II) and apply the thinking within that project – which holistically aims for a good life – to supporting rural residence and employment. We could consider that a benefits system (as of now) that rewards (traps by punishing attempts to do otherwise) people staying in cities, when getting benefits at working age, does not lead to increased mobility towards rural areas. It is not building viable villages that are balanced in terms of a range of services to be expected for village life¹⁴².

Our current praxis encourages people to leave the countryside or, once having left, for example, to study at university, not to go back nor even to plan to go back if so amenable. There are programs successfully implemented, in other countries, that led to counter-urbanization and rural area repopulation, e.g., Rural Resettlement Ireland (Douthwaite, 1996c). They do not seem to be implemented in Finland. Perhaps the lack of implementation is due to framing under the old regional paradigm rather than the more autarky-based New Paradigm of rural development. We need to change the direction of flow, by looking beyond where we were.

¹⁴² A contrasting example exists in Norway with the kommune [municipal] service requirement. When Karlsøy was to be delisted it promoted activists to move there to make the island viable. The film *Karlsøya - mellom geiter, rock & Muhammed* (1994) covers the story.

7 PRACTICAL ACTION

In Chapter 7, I will write about the need for financial capital for CC schemes. Ironically, when making your own money, financial capital is still needed. I will then discuss the institutional support aspects of CC schemes. I suggest some places for implementation. I will indicate that research is needed to integrate flows within the resilient state and at the community level. Lastly, I give some short policy suggestions based on an ecosocial virtue ethic.

7.1 Accounting & Finance

If the ways of operating a CC are based on heuristics (Epley & Gilovich, 2006) and a ready reckoning without formal accounting or financial recording, much as a culture of favors may operate between friends, problems are easy to overlook. Few have the memory and cognitive capacity to effectively manage systems on the fly. Trust-building and long-term functioning require accounting and financial acumen, which are increasingly required as any scheme grows. Both are often considered together, as Atrill & McLaney (2011) argue for.

A way to understand why they are needed is to contemplate a basic economic unit such as the household, which expands to an extended family of those related to that household, and thence the community within the bioregion and eventually a wider society of interlinked bioregions. As complexity increases from kin to kith and the reciprocal nature of financing distances increases (both in terms of knowing the full chain of relationships and time to operate), more care must be taken over the terms and flows of money or other assets to ensure that the system dynamically functions.

Without care, an economic system is vulnerable to collapse from over-exploitation. An economist might ascribe collapse to the over-expansion of credit, but financial capital is not the only capital that can be over-exploited. For example, relational capital was over-exploited within the hospitality service CouchSurfing, when people pejoratively named “Ryanair refugees” came in large numbers to

stay with hosts in Tampere. While the hosts were not expecting any money for people staying, they did expect that people who said they were coming would come. Too many “refugees” asked several hosts in case one host was not to their liking, and then did not inform their second-choice hosts they would not be coming. When they talked with each other, the Tampere local hosts found out about the inconsideration, and many decided not to continue hosting foreigners.

Capital considerations say nothing of the moral or spiritual paths individuals or subcultures follow to make a system work. One of the claims about money is that it provides ‘a measure’ and that measuring is an accounting function. Community currencies facilitate this function. For example, 1 hour in a LETS scheme Cyclos system record can be traced to where time is spent and by who. Those members who have too much time spent on them can be encouraged to offer their time surpluses to idle others. Here, solidarity is encouraged rather than market rationality.

Furthermore,¹⁴³ an analysis of flows from accounting records (or in real-time, with appropriate software) may pick up issues such as poor *cash-flow*, pooling, or low usage by certain cohorts of users. A cohort analysis can reveal social marginalization and exclusion, leading to social technologies by way of intervention to change the community of use. Even, creating a new community of use is one solution. For example, my analysis of the *sysmä* revealed that young people were paid by the municipality to take summer jobs. Instead, they could have been paid in *sysmä*, which would have connected them to the local business community and increased relational capital with spillover benefits of local

¹⁴³ It is challenging for a researcher to gain accounting awareness. For example, I was promised access to the *sysmä* data and VTS Pisteet kotiin’s records. When I tried to see them, I was told I could not or got no answer from the data holders. This makes accounting analysis impossible. So why is this? Financial records must be protected. Scrutiny of accounts can reveal incompetence or fraud, and this exposes someone (or the organization) to legal consequences. Thus, they would rather keep the data hidden.

More recently, sensitive data privacy and jurisprudence (see Kokott & Sobotta, 2013), along with fines for breaches of data protection regulations are encouraging a culture of secrecy rather than transparency. Lastly, there are commercial sensitivity concerns, and processing costs, which have a financial impact that needs to be mitigated. Researcher credibility is only part of the story here, i.e., young PhD students are denied access, whereas an established professor with tenure gets it.

There can be professional indemnity and insurance reasons too, wherein no researcher can access data. In Finland, I found that the lack of a professional research body for social science was an issue. In comparison, in the UK, where there is one, it makes it easier to get access. In Thailand, I even had a researcher’s visa that helped reassure research subjects, so they complied with my research requests. They did this because I had national accreditation, and they could see I followed ethical and legal procedures. Such status as a researcher could come from a professional body or university giving every PhD student the status of *doctoral candidate*, as part of a research team, instead of merely *continuing student*, as currently occurs at the University of Jyväskylä.

On the other hand, BookMooch has transaction data that is freely available (not the financials) for when, who, and where points were exchanged. There is a current-see element too, as messages acknowledging thanks for the books (or reporting where book transactions have not gone well) are recorded in the system and can be analysed. The Bristol Pound is another CC scheme with good data. However, I could only see reports as a proxy for the raw data. Bristol Pound and BookMooch, with their data time series over a relatively long period, offer potential for comparative analysis of how schemes rise, fall, and endure. See Petz and Finch (2022; 2023) for analyses of the Bristol Pound data.

employment, local wealth concentration, and a lower environmental impact. The municipality was doubling its administrative burden as it was already running a system of account when it introduced the *sysmä*.

7.1.1 The lessening of accounting relevance

A CC may fade away as the accounting function becomes irrelevant in a community over time. Fading is a quite interesting proposition, as it is often feared that CCs monetize reciprocal arrangements in a culture and commodify a culture so that generosity and solidarity, once given freely, are replaced by more parsimonious money relations that demand a more even balance between what is given and received. See K. Polanyi (2001 [1944]) for ideas about money relations changing culture; and Petz & Finch (2023) about using tokenomics for behavioral change.

An example of the fading away and replacement of money relations with a more solidarish culture is the *fureai kippu* [ticket for a caring relationship] in Japan (Hayashi, 2012). Originally, these tickets were introduced to facilitate the intergenerational transfer of voluntary work capacity, from young people (relative to the frail aged, as some “young people” were retired pensioners) to older people (the frail aged) who could not meet their own needs. These tickets did work. Volunteers kept the tickets to use later as a form of payment, either for their own use or with their extended family, called vertical use. Thus, tickets acted as ‘a store of value,’ another function of money.

However, as the needs of the elderly were made apparent, and then met, the tickets were dropped. Above is a simplified account, as *fureai kippu* schemes varied; horizontal transfer occurred, i.e., peer-to-peer, such as between parents for childminding; many older people had to buy the tickets with fiat rather than earn or gain them from family volunteering; and changes in government elderly care provision made the tickets deprecated in places. Consequently, the formal accounting role tickets provided was dispensed with. There was no need to measure how many tickets an ask was worth nor to store the value to be later redeemed. Asking (the demand side) was balanced with provision or offers (the supply side) from those able to meet those needs, i.e., they were happy to help without requiring tickets in return.

Such a reduction to demand and supply reduces the more complex arrangement of flows present into a conflated over-simplification. Rather, caring was engendered, and motivational behavior altered, not to a developed economic market that supplies a service as a commercial business might operate under economic rationality. Instead, it was to a caring culture of action founded on mutualism, more in tune with the traditional Japanese value system. I saw a similar fading away by some users of BookMooch, where they now gift books and no longer require Mooch points in return. Other users switched to using BookCrossing as behavioral change occurred. Thus in practical action, we can use CCs to remove the need for accounting.

7.1.2 Value accounting or accounting for values

A way to handle these flows and become aware of changes within a community of use is via value accounting. Other metrics, and most importantly, other capitals might be looked at, by surveying. Mainstream market economy surveying looks at managerial sentiment and business confidence, e.g., Salhin et al. (2016), and consumer sentiment, e.g., Gelper et al. (2007), who found that a consumer sentiment index was more useful for “incremental predictive power” for services than goods.

However, with CCs, we could look for signifiers using happiness econometrics and well-being indicators. The Neocracy (Article III) monitors indicators with its Community Happiness Survey, which gives a result across 9 different domains: Well-being, Health, Time use, Education, Culture, Governance, Community, Environment, and Living Standard resulting in a Happiness Index (Pro Team Investment GmbH, 2022).

Surveying methods give a snapshot of what is happening. Over time, the snapshots add up to time series data, but they still need assessment. The design of a CC can incorporate a current-see aspect so that flows are visible within the CC as an artifact, e.g., the stamp scrip discussed in footnote 78. With electronic currencies, various chains can incorporate data (images, text, and sound) to carry that information. It is possible to make a wide range of applications here. The platform company Dock Labs AG (Sriram, 2021) is developing some using blockchain, Ethereum cryptocurrency integration, and credential verification¹⁴⁴.

Notwithstanding the usefulness of value accounting, there is a subtlety missing by reducing specific values and trying to account for them in monetary terms. For example, adolescents (as young leaders) helping a kindergarten get great pleasure from looking after and playing with the kinder. Does that mean they are paying for a service? So, are they on the demand side? Similarly, are the children a service provider and thus on the supply side? If an elder child plays with a younger sibling, then who is supplying and who is demanding? There is mutualism, with both sides benefiting, and neither acts in a transactional way.

Many community currency projects seek to engender such reciprocity, within a tangled web of relationships. To these ends, the idea of a borrowing member being seen as a good agent often needs to be incentivized. The thrifty believe borrowing is going into debt, which is bad; not that borrowing facilitates others to provide a service. For example, in the BookMooch scheme, the Bank of BookMooch (Article II) had this enabling function, with the implied perception that if you were lent points to mooch a book, you would be much more likely to send and offer books to others. There was no *point-charge* for *loans*. So *lending* was not done for financial profit, but to keep a vibrant book-sharing community vital. Such initial finance given to an individual member of a community currency scheme is one way to kickstart the engine of currency flows. It is hoped that these

¹⁴⁴ Verifiable credentials are not stored on the blockchain (or other chain) for security and privacy purposes. They are securely encrypted and held by stakeholders. Only the Product DID (Digital Identity Document), and Issuer DID are stored on the blockchain.

will build a functioning financial ecology, but deeper planning is needed for transformative action on a grand scale.

7.1.3 Earth Regenerators' financial ecology

Deeper planning operates in the Americas within the Earth Regenerators (Article IV). Regenerators aim to bring about regenerative finance, where a community can contribute fiat money, even from a distance and with little time. The fiat money raised is given like a regular *subscription* to a defined community *pot*. The pot is then spent based on that community's wants and needs.

While fiat currency can be shared between Earth Regenerators, by those holding fiat giving to those without, some use SEEDS in different *pots* (Smitsman et al., 2022). SEEDS is the ecosystem that uses the currency Seeds. SEEDS is run by the company Hypha. Hypha is controlled by Visitors, Citizens, and Residents, which are levels of membership, with Residents having a "share of the Trust Tokens to participate in governance" (Citizens of SEEDS, 2020:24). SEEDS uses a particular form of holonic sociocracy, as a management mechanism; and a DAO (Decentralized Autonomous Organization), as a participative democracy governance mechanism (Hsieh et al., 2018).

Seeds is a cryptocurrency and a token. As laws and regulations vary around the world as to how tokens are defined it is quite unclear what kind of token a Seed actually is (see Petz & Finch (2023) on token types for a tokenomics typology). I describe a Seed as a utility token with caveats. This is because a Seed is a token derived from a Hypha token derived from cryptocurrency / fiat purchases in many cases. A Seed is intended to act as a *liquid currency* and, if operational, will not be confined in the way a utility token is, i.e., only for use by Hypha for delimited service delivery as the issuer.

Generation of Seeds partially relies on funding from fiat currency, though Citizens of SEEDS (2021:31) claims that "SEEDS isn't intended to be another speculative token for professional traders to profit from. It's the genesis for a Regenerative Society that gives value to those who are actively working towards the healing of our society and planet. For this reason, a maximum of only 5% of the total initial supply of Seeds will be made available through the progressive sales from Hypha. Most tokens will be distributed in the form of grants, gifts, referrals, interest-free loans, and campaigns that are proposed, and decided upon, by the SEEDS community." Thus, this Token & Allocation document reveals that the aim is to distribute and control the currency in a more interventionist than neoliberal capitalist way.

The creation of Seeds and, thus, the supply of Seeds is conceptually based on a market myth. Cf. Keynes (1935); Schumpeter (2014); Wray (1998); and Kelton (2020), who throw relevant light on the myth, which informs Modern Monetary Theory and related ideas about the discretionary creation of money for social purposes. The myth is that money as fiat currency is based on nothing and that *private banks* (rather than the *central bank*) create money out of thin air as a loan at their caprice. Fractional reserve banking is seen as a kind of cups and balls trick, i.e., a sleight of hand suggesting something is there that is not.

SEEDS tries to replicate the mainstream financial system by backing Seeds not only with fiat (to a small extent on a *fractional* basis), but also with *sweat equity* and trust. The aim is that organizations and individuals will not only trust each other enough, but they will distribute that trust (which is a reputational capital flow) in terms of accepting Seeds for goods and services from each other. Those will be goods and more often services for community-focused good causes (as SEEDS participants see them), rather than a use value for an individual, as food might provide.

The underpinning philosophical claim is that the Maya used real seeds as a commodity money. Seeds could be eaten or planted, not only traded. Participants somehow embed that limited commodity aspect in the Seeds released as currency (Phi, 2021). Long-term storage (hoarding) is not possible for plant seeds, so an individual only keeps a limited amount, and SEEDS should capture this aspect of decay, much as demurrage aims at. As of now, SEEDS peeps are a little hazy about how *quantitative easing* or *tightening* (especially the tightening) will take place within SEEDS, but quantitative adjustment will only happen after the whole economy crosses a participation threshold, and then it will “Go Live” (Citizens of SEEDS, 2021).

The superficial reason for Earth Regenerators using cryptocurrencies is due to dysfunctional banking systems, which operate to counter money *laundering*, and not to facilitate regeneration of the biosphere. There are still deeper reasons to seek alternatives. To some extent, fiat, SEEDS, and other cryptocurrencies leave money management in others’ hands than the community of use’s. Thus, to build a monetary community where *financial sovereignty* remains in the hands of the regenerative community, i.e., the Earth Regenerators’, money-giving via a phone app called Vivero (Martsch, 2023) is encouraged.

Vivero is not only used as a payment mechanism for giving money in a *donor* or *patron* relationship, as found on *crowdfunding* websites such as GoFundMe (www.gofundme.com)¹⁴⁵. Rather than the traditional donor-recipient relationship of *charitable giving*, Vivero builds community. Rachel Olson, the Vivero visionary steward, states, “the idea was to bring people together more than anything else... making sure that the people who wanted to take a step closer to the landscape-level life-changing actual[ly] active [could]” (Martsch, 2023). The aim of Vivero is that money relations extend beyond money, and into meaningfully inclusive relationships that become the foundation of a community.

Vivero’s collaborative finance is not an appeal to finance a particular item. Such appeal funding was engaged in by Hirvitalo (the Center of Contemporary Art Pispala) with “Hirvipeijaiset,” which were *fundraising* concert nights run at the anarchist club Vastavirta-Klubi, Pispala, Finland, for a specific purpose such as the renovation of Hirvitalo’s furnace (Hirvitalo, 2010). Vivero seeks financing for a general fund wherefrom the community of use can decide, via various participatory democratic approaches, how the money is spent.

¹⁴⁵ Crowdfunding is used by Earth Regenerator founder Joe Brewer, i.e., the Patreon platform for creators: www.patreon.com/bioregional_activators

For the Earth Regenerators, radical transparency results, so it is clear where the money originated and where it goes. ProSocial processes and tools are used to build community values and culture. Ostrom's Core Design Principles, based on the functioning of many small community groups and which are effective in achieving sustainable (both ecological and economical) management of limited resources held in common, are thus employed (Brewer, 2023). Collectively, these mitigate vulnerabilities to loss or damage to the community.

Financial tools can be applied to other capitals than just money (financial capital). Accountancy can play a role in auditing social characteristics and participation within a community of use. Structurally, changes can then be incentivized, such as using SEEDS to encourage behavior in the different cohorts of Members, Residents, and Citizens. Earth Regenerators is dealing with this structuring issue, not only by use of SEEDS and Vivero, but also through regular webinars, an open sharing culture using the social media platforms of Mighty Networks, and Hylo ¹⁴⁶ and by building a Design School for Earth Regeneration¹⁴⁷. There is a deliberate plan (so far carried out in the USA) of making learning journeys (bioregional activation tours) ¹⁴⁸, to take ideas (knowledge capital) to communities by speaking and connecting projects with each other.

The culture of Earth Regenerators is nested so that the financing of one project is not done in isolation, but will connect to other small projects, which will operate in concert bioregionally and eventually at the landscape level. Thus, financing engenders flows of not just finance, but also knowledge and cultural capitals, which should transform globally the current world civilization. Transformation is the aim, though it is probable that other initiatives such as SEEDS and its cultural and political ways may interact to create new synergies and directions. An activist accounting approach has not been applied to these different flows. However, it could be, to thus link the flows of Seeds, Vivero app transactions, and fiat, along with knowledge flows for governance purposes.

7.1.4 Management accounting & governance

When looking at the political aims within a CC scheme, we go beyond the simple aspect of financial accounting to governance. We touch on wider accounting questions, which tend to fall under the remit of management accounting. Management accounting includes information on how decisions are taken and aspects of financial control. These aspects often reside as tacit knowledge within scheme management, as legal frameworks and contract law mandate many of these aspects, so they are automated in most business cases and often controlled under charity laws too when it concerns associations. Thus, culturally, they are just accepted and not thought about in relation to the special circumstances prevailing in community economics. They tend not to be profit-oriented.

¹⁴⁶<http://earth-regenerators.mn.co/>, www.hylo.com/groups/earth-regenerators/explore

¹⁴⁷<https://design-school-for-regenerating-earth.mn.co/>

¹⁴⁸ E.g. https://www.youtube.com/watch?v=Om1c_TtDQY Activating Bioregions in the Great Lakes.

Community currency practitioners are further challenged on their understanding of how a community of use interacts with operational and philosophical underpinnings. What makes a scheme work the way desired? Participative democracy is an approach that may work in small communities to connect aspirations with praxis. Management accounting procedures can be built into a protocol, so by operating the management function, sovereignty-assuring aspects are included. But inclusive governance can go disastrously wrong. Some DAOs illustrate such poor governance mechanisms (Morrison et al., 2020).

In theory, a DAO allows anyone invested in running a system to participate in deciding how it runs. In the case of a Positive Blockchain project practitioners might decide the pricing of a token in an exchange for fiat, how much reserve there is, or any other conditionality as part of a protocol. DAOs sound attractive to people who want to see where the wealth invested in the currency flows and have a say in managing the flows.

However, DAOs can fall victim to participation failures. Participatory democracy requires that people participate. If too many delegate the task, or are excluded by other mechanisms, e.g., by the language of meetings, or by geographical or cultural distance from others, then power flows to those with the time or inclination to use it. Similarly, I saw in holacracy- and sociocracy-based systems, without strong chairing or a good understanding of dynamics, the active are rewarded with influence.

Another aspect where good accounting can play a role is dealing with *market failures*. An example is where market failure has occurred in providing low-level or grassroots finance in an international development context. The failure is that the market has not priced knowledge (knowledge capital) correctly. Instead, the market looked for *collateral* in terms of *income, savings, or property*.

The Grameen Bank [Bank of the Villages in the Bangla language], a *community development bank* in Bangladesh, has provided *micro-finance* to small groups to alleviate that failure (Yunus, 2003). Grameen provides more than one kind of capital: financial capital comes as a loan from the bank; cultural and knowledge capitals, via the structure and accounting functions coming from the small lenders, and solidarity groups that manage the money repayments and use.

There is nuance in the cultural settings where micro-finance operates. To a person in a country with an established banking sector and credit rating agencies, it seems lending is absent due to credit market imperfections and a lack of a good credit scoring system. Thus, some of the creditworthy are excluded. However, a complex web of kinship and relationships shapes aspects of the banking system and related money transactions, and there can be additional reasons why credit is unavailable. In some cases, microfinancing that did not take the cultural milieu into account was not successful.

It appears that joint liability groups (Duvendack et al., 2011:7) with a weekly social meeting, a loan amount that was not too high, and staunch support for repayment by peer pressure are more effective than lax situations, or the use of greedy lenders to administer the funds. It is an open question how accounting standards can change to operate in these different cultural frameworks, but there

is recognition by scholars that indigenous and subcultural systems of accounting could inform praxis for different ways for accounting to function (Vidwans & De Silva, 2023).

It is likely that a mainstream private bank will be required for a CC to run. Involving a bank(s) in planning is prudent. Banking cultures vary, and finding one that accords with the aims of a scheme is wise. An *Islamic bank* that takes a more collaborative approach brings credibility, and a partnership approach that makes a scheme more resilient. A bank specialized in the sector concerned (rural development, cooperative relations, combating poverty, etc.) can support a scheme with knowledge capital and similar values, along with financial acumen.

Examples are members of INAISE (International Association of Investors in the Social Economy); they “are finance organizations which invest in undertakings of an ethical, ecological, cultural, collective and self-managing nature, across cultures and genders, including fair access to finance, sustainable support of the developing world, and in favor of the social economy generally” (INAISE, 2019). They tend to have an operating culture which is in accordance with those aims, and “In the conduct of their own affairs and their approach to money they also organize themselves in such a way as to develop working practices which are supportive of the promotion of social investments” (ibid.).

Mainstream financing mechanisms should be considered when creating a new community economics scheme. There is much wisdom to be found in private banks, community development banks, *trusts*, and *foundations*¹⁴⁹. *Philanthropists* may have made their money in conventional ways and want to give back to the community at large with their wealth. Some donate as angel investors and others in for-profit businesses, but many seek to support more diverse capitals.

Companies have marketing and community budgets, often as part of CSR (Corporate and Social Responsibility) or ESG (Environmental, Social, and Governance) requirements (Gillian et al., 2021; Elkington, 2018). All of these may supply direct financial capital entwined with best practice as regards managing that capital. They are especially useful in supporting *matched funding bids*, *bridging loans*, underwriting, and *structuring* financial flows. Structuring commonly comes with vital operational experience and knowledge capital on how to run a scheme. The *sismä* scheme suffered from a cash-flow planning issue that affected its operational capacity, which was exacerbated by the lack of such structuring.

7.1.5 Community sources of financing

There can be a profit motive between small businesses in a *low-finance* scheme. For example, the Local Loop North West scheme in Lancaster, UK (Local Loop, 2023) works on the idea of businesses engaging in *mutual credit offsetting* to reduce the costs of holding capital. It is expensive for a small business to attain and hold capital flows, which they may need only to periodically settle credit. Mutual

¹⁴⁹ Some mainstream financial organizations, due to their credibility, can access credit at preferential rates (cheaper or longer repayment terms) than commercially offered. This may be from ODA (Official Development Assistance) or in the EU, Regional Development funds.

credit can provide liquidity as paper flows rather than actual monetary transactions. A wider application of such restructuring has potential.

In community economics, the drive for finance may come from other forces than from the profit motive of businesses (profit as more monetary capital or apparent liquid or illiquid assets). Then another financing mechanism can operate. In a regenerating bioregion, the aim is to change the ecological environment from an exploited / colonized one. The financing is directed at changing the social environment too, from extractive to mutualistic relationships.

Small, regular sums, such as a *tithe* or subscription, can provide a regular revenue stream. Membership *fees* or periodic accounting that take an amount from transactions work too, as the *sysmä* did with conversions back to fiat. Other examples of solidarity groups pooling money, to create a supply of credit as savings clubs and via various other mechanisms exist.

Hans-Florian Hoyer worked at the GLS Gemeinschaftsbank eG (Barkhoff, 1980), founded in 1974, where every individual was assumed to be “good for 5000 marks” without much paperwork. This allowed collective financing as “the bank thus had the security to give out the loan.” Such “crowdfunding” financed schools, farms, and a printing agency¹⁵⁰.

Minority communities, excluded from mainstream finance, operate a range of community-level financing schemes. An example of such a ROSCA (Rotating Savings and Credit Association) is *Pardner Hand*¹⁵¹ run by the Afro-Caribbean community in the UK (Inniss et al., 2022; Ross & Burrell, 2023). Mutual Credit Services is working with people from the Brixton Pound community currency to foster similar community finance projects in London.

Individuals can support such preferences too. Most directly, the peer-to-peer loan company *Fixura* operates in Finland. *Fixura*¹⁵² works by an individual requesting a loan for whatever they want, which can be as hedonistic as going on holiday. Lenders agree to loan them the money through the platform, and then the borrower pays back, just as if they had borrowed from a friend. These are loans, not grants.

However, I typed much of this thesis on a laptop purchased with a small-grant program provided by Extinction Rebellion to its national and local groups. While the grant took months to obtain, as part of an application process, getting grants can be quicker. Instant grants operate to allow people small amounts of money for a wide range of uses via artists’ interventions, e.g., as carried out by the Center for Artistic Activism in New York (Duncombe & Lambert, 2021).

¹⁵⁰ <https://youtu.be/jCZZqIR4-k0?t=98> A brief history of credit clearing, with Hans-Florian Hoyer, interview by Dave Darby for Low Impact TV.

¹⁵¹ My brother-in-law, Michael Cruikshank tells: [11:46, 17/6/2023] “Very common in Jamaican households (my mum used to hold the money for one she was involved with). Also in other Caribbean islands for sure. My Grenadian dad said it was called *Su-Su* there. Used out of necessity - they couldn't trust the bank back then, money would be deposited but lots of people couldn't (or weren't allowed to) read. So the money was confiscated for some made-up reasons [and it is] still on the go - but not common.”

¹⁵² <https://fixura.com/en/front-page/>

7.1.6 Resilient financing

There have been attempts to finance community currencies via large grants, sometimes called start-up grants. The issue with such granting is that if a project is not economically sustainable, the culture becomes oriented toward seeking ongoing grants or support via a new project or start-up grant (in financial terms, the cultural capital is no longer liquid). Eventually, grants may not be forthcoming, and a project may collapse due to a lack of operating funds. A staccato rather than a legato situation can result. This stop-and-start happened when the Bristol Pound sought funds from large foundations. Eventually, the Bristol Pound stopped, and so far, Bristol Pay (its successor) has failed to start.

These financing options are limited in time, just like bonds, *company paper*, or *time deposits*. For continuity, a long-term revenue stream is required. VTS (Article III), in contrast to the Bristol Pound CIC (Petz & Finch, 2023), has a revenue stream via rents that are assigned to its points system that is ultimately financed by the Finnish state's institutional arrangements. KELA (the Social Insurance Institution of Finland) and ARA (The Housing Finance and Development Centre of Finland) government agencies both contribute to the viability of VTS' housing and thus indirectly to the points. In many cases, KELA pays housing benefits to low-income residents of VTS properties. ARA supports Housing First so that everyone has a home, but beyond that, it administers a complex system to encourage the building of new apartments by providers. Should mortgage rates rise, the Housing Savings Bonus Act (Finlex, 1992) gives mortgage relief on payments for younger, first-time buyers.

Together, these supports provide stability for housing costs. If the costs are known in advance in this institutional way, then housing stock improvement can be priced in. The points system run by VTS allows input from a management board, a residents' democracy group, individual smaller groups of residents, and each renter in how they spend and use the points. The financing of energy sources, efficiencies, *securities*, and more could all be included and financed by subsidies targeted at the goods and services the points can be used for. For example, points can be spent on secure window blinds. The pricing of blinds in points influences which blinds and, thus, which suppliers are chosen.

Mixed revenue streams are crucial to *resilient financing*. A diverse economy results in greater resilience to shocks, and so it is with community economics. All projects are less vulnerable if not reliant on a single source of financing, which may be lost due to regulatory change, the vagaries of political agendas, or another external locus of control. Membership fees, usage fees, micro-charging, grants, and return on investments can all be accounted for in such a mix.

Yet it is not enough to look superficially at the money (financial capital). It is worthwhile looking at different tranches of a financial project, service, or product and analysing how they vary in risk. Reliability can be assessed by identifying who is behind each tranche. If the cohort behind a tranche has many old people who may die soon; or teenagers who may move away, future-proofing can be planned for by projecting changes needed over time. Bringing in new members, and caring for existing ones, are important considerations for the long-

term sustainability of any culture or operation. A diversity of projects operating in a milieu creates a more resilient culture that can *cross-subsidize* and thus finance diversity. These are very dependent on internal loci of control, such as team construction, governance, and strategic planning. However, some mechanisms depend on an external locus of control. Here, a multiple capital approach is quite useful to deal with deficits (see Article II for a discussion of different capitals).

7.1.7 Public mechanisms to facilitate financing

Finance is “the management, creation, and study of money and investments. It involves the use of credit and debt, securities, and investment to finance current projects using future income flows” (Hayes, 2023). Commonly, people’s experience of finance is that of personal finance, with personal investments and money management. Yet their financial literacy (what they know) and financial capability (executive function re what they know) vary (Goyal & Kumar, 2020), with knowledge increasingly coming from education from corporations often more concerned with investments and banking (see OECD, 2009 for the agenda-setting; Hütten et al., 2018 who question the framing of that agenda and propose a more radical “critical financial literacy program”) due to institutional demands that these are so provided, for example by the OECD Recommendation on good practices on financial education and awareness relating to credit (ibid.).

Thus, perceptions are often shaped by media reporting on high-finance, which involves large and very large flows of capital from a provider (investor) such as a pension fund, insurance company, or *angel investor* to a *borrower* such as a start-up company, big business, or even governments. These are frequently embedded in a byzantine complex of arrangements to insure and assure financial flows between contracting parties.

They are magnets for unsavory characters who profit from lying and cheating while exploiting human vulnerabilities, e.g., asymmetric information, greed, fear, willingness to be dishonest, stupidity, and ignorance. Undoubtedly, such behavior has led to a dim view of finance, which is justified by the financial and accounting scandals or failures caused by the operation (often by investment companies and banks) of these systems, e.g., banking runs, bond market manipulations, and the *subprime mortgage crisis*. See Lewis (2011) for an exposé of this avaricious culture.

A good case of high-finance building ecological sustainability is the *debt-for-nature swap*, which the international bank Credit Suisse AG profitably executed (N. White, 2023). Credit Suisse’s swap took the nation-state of Belize and matched its needs for environmental finance with debt restructuring (thus altering debt repayment terms so money is available now for conservation financing) with *investors* (pension funds) and securitized the so-created blue bonds by *underwriting* by the U.S. International Development Finance Corporation.

The situation in Finland contains aspects that limit, and control financing based on this legal and institutional understanding. A police permit may be needed for fundraising (Hooghiemstra & Buysere, 2016; Article II). However, some semi-commercial operations are carried out by registered associations and

official religions. For example, Nextiili ry (Epäilys, 2021) runs a vintage store with rehabilitation training and entrepreneurial incubation. Nextiili promotes the circular economy via selling upcycled or recycled craft supplies and textiles.

Is there potential to grow a CC between the cracks (see Article III on this utopian propensity)? Presently, the associational accommodation does not work for CCs as a more complicated legal arrangement is required. Thus, an institutional brake is applied to creating a new community-based economic system that could complement the high-finance system. The UK and the USA, with credit unions (McKillop et al., 2011), community interest companies, or benefit corporations (CIC Regulator, 2022; HMSO, 2005; Reiser, 2013), which do not seek commercial profits, look ripe for technological transfer to Finland.

Tax changes are needed to make the great transition. They are needed in Finland to make community currencies viable. Other countries have better tax systems to facilitate small economic experiments. France has a system where community currencies can function institutionally (Cauvet & Fabert, 2018). In several countries, time banking is seen as outside the tax system, when ancillary or low-level community activity, as “social favours” (see Douthwaite, 1996d:71), but not by Finland’s tax authorities (Eskelinen & Van der Wekken, 2022).

Different levels of government engender small grant funds. For example, the UK National Lottery Awards for All scheme (TNLCF, 2022) is wide-ranging in what it funds, with amounts ranging from £300-10 000. A Finnish equivalent uses gambling profits (Salonen et al., 2019). These are vulnerable as they rely on consumer participation levels. During the COVID-19 pandemic in Finland, fruit machines were not available, and revenue dropped a lot, which put much arts funding in peril. More reliable are tax-funded schemes. Tampere municipality offers small production grants for projects to new groups to help them produce cultural activities (Rajamäki, 2023), which I used for a murder mystery I wrote.

All these schemes give small projects start-up funds. Funds can be used for scoping studies or experiments. Yet, they do not come automatically. They rely on applicants’ ability to apply for them in accordance with the calls and manage any resultant finances accordingly. There is a need to encourage economic literacy to build capacity and knowledge capital to use financial capital prudently.

Where public money is used, as in Sysmä (Article I), then it must often be matched with funding from another source. In Sysmä’s case, the regional development quango, the Regional Council of Päijät-Häme¹⁵³ and the municipality. These financing mechanisms often have strings attached, which limit the flexibility of community currency practitioners in how they run a scheme. The grant in Sysmä’s case was, to some extent, pushed on the community by the funding agency. That agency controlled the nature and focus of the financial intervention, and the thrust of what was tried in the community. When the project struggled, there was a lack of technical and financial support. Even if the operation had happened as planned, there was no long-term planning on how finance was to be achieved over future years.

¹⁵³ <https://pajjat-hame.fi/en/regional-council>

Seed capitals could be better directed. There are funds for the arts, science, research, and even business innovation. By their framing, they disempower alternatives that are not so easily defined (such as community building). There is a poor level of support for capacity around financing an alternative that does not meet these requirements, or does not aim to make a financially profitable company in simple cash terms.

As financial capital is not enough, we could usefully see Regional Information Coaches (ERDE, 2009) funded. These RICs would assist rural communities in negotiating with agencies to create bespoke alternative framings, as innovative collaborations for rural areas. Coaching can happen for the many small associations (Article IV) in Finland. Larger umbrella INGOs exist too. One is FINGO, which builds capacity in Finland with smaller associations as membership organizations. FINGO supports not only cooperation projects as part of *official development assistance*, but also as rural extension (as with Sydänlanka ry reported on in Article IV). Inflexible accounting procedures and traditional framing approaches currently make rural extension in Finland by FINGO difficult¹⁵⁴.

Finland has cultural issues with risk-taking. Start-up legislation that enables, empowers, and encourages is needed. Start-up funding and business support via trainings and extension services alone are insufficient. A Finnish initiative, International Day for Failure (Mantere et al., 2013), encourages calculated risk-taking. An incubator approach that builds capacity is desirable.

7.2 A Supportive Milieu for Community Currencies

We should broaden the CC concept from a cargo cult attempt to replicate what fiat does with local money. We should think of vouchers, points schemes, and non-money-related tokenization. Supporting near-money diversity requires appropriate design. Technical support is needed to make any initiative successful. Technical support includes social technology, not only computer tech. It is not enough to only give money (via *helicopter money* or *airdrops*), but a grant writing and ongoing support team with a multiple capitals approach is needed. In the beginning, incubation is required, yet further capacity-building from an enduring relationship across projects is necessary for many initiatives to succeed. This lack can be seen in rural projects that fail to get beyond the nice idea stage.

Sysmä reached out to academics, a consultancy company, and investigated other projects. However, they failed to keep an ongoing relationship in partnership with other successful schemes in the world of community economics. VTS looked at what was happening in Holland and copied a foreign scheme. They have now worked with another scheme to share their knowledge for a

¹⁵⁴ As part of my reporting to FINGO, I asked about capacity building. I was told that it is difficult to fund small associations' people to get the necessary training for the associations to be able to access and properly manage finance for projects.

housing provider in Jyväskylä to transfer the technology there. Projects can learn from peers, and peer-to-peer interaction makes them more resilient.

Many projects are funded (funders want to spend their money) without appropriate technical support. When grant officers, community outreach bureaux, or engagement in extension services, as found with agricultural extension, are deficient it results in wasted expenditure. Wasted finance is common in the alternative econosphere (Slater, 2020); idealism is insufficient. Expert input for long-term viability is needed. Even with expert input, knowledge of the local socio-economic context and a real commitment to co-designing interventions can be critical.

Community engagement can happen through appropriate institutional arrangements. Community councils (see Article I) try and bridge the gap between an idea and a worked-out concept via a proper strategy and project plan. They may have an explicit remit to build capacity, which gives transferable skills, and increased social and educational capital, which can be applied in different projects, not just fintech or community currencies.

Community councils' involvement increases the likelihood of successful projects (Markantoni et al., 2018). The arrangement of these bodies or equivalents like development trusts, advisory bodies, or other community-based initiatives varies. There are political considerations as to if they are building resilience, are a proxy for state services, or even replacing them. See Markantoni et al. (2018); Revell & Dinnie (2020) for a discussion of these aspects.

7.2.1 Mutual Credit Services & the Credit Commons Society

Business consultancy can be valuable too. Companies like Mutual Credit Services (MCS) are of direct relevance to community financial literacy. Dil Green, Director of MCS, told me (2022) that they aim to achieve what they call "inside money on the basis of a viable business model." As a core component, alternative monetary forms or infrastructures are endogenously supported by a participatory culture that arises within a community, e.g., solidarity funds in a savings club. This is where it is incredibly important to see what is exogenous: subsidized work, where there is a continual drip feed of energy and resources from outside, e.g., outside money such as grants.

If support does come, such as community wealth building, care needs to be taken that if it is policy driven, that the policy does not drive over the community. MCS' approach is one of commons governance, with users of a system (in partnership with other stakeholders) making decisions, rather than external "regulators."

They aim that all their tools should be co-designed for use by ordinary people without imposing dependence on 'experts', although MCS may operate as a 'service member' to provide technical and policy support, e.g., Local Loop North West, a b2b clearing club. MCS not only works with businesses, but communities too.

Being serious about making a real impact on the world economy, MCS aims to enable people to make different choices about the core aspects of their lives:

food, shelter, education, healthcare, and dignity in old age. It is worth unpacking what 'enable' means in practice; it is (only) offering services with immediate, obvious, and direct economic benefits, i.e., work 'better' than the current system for individuals, not just groups.

Direct enablement is a core design principle, and MCS uses a variety of tools (not just mutual credit) to achieve this. These tools can be seen in the Economic Tooling, Social Tooling, Network Platforms, and Emergent Outcomes sections on their website¹⁵⁵. Consequently, they aim to create interventions rooted in people's reality. Significantly for community economics development, MCS has supported the Way out Economics Conference in collaboration with the Bristol Pound CIC in 2022; and the Credit Where Credit's Due Conference in 2023 with the Credit Commons Society (CCS).

MCS has facilitated the CCS to structure itself governance-wise and function effectively. MCS hosted a learning forum called the Circular Trade Analytics group. The CTA is now part of the CCS and has regular expert lectures with follow-up discussions from practitioners and academics from the world of community economics. Financial literacy, and indeed a deeper consciousness of the nature of money itself, is important to MCS.

The MCS partnership with the Credit Commons Society puts emphasis on community-based action research for financial literacy and empowerment, as well as building the 'culture' of the Credit Commons. Together, they ran 'Money, Community, and Me' in a project called Brixton Mint in London and an Offers And Needs Market¹⁵⁶. More recently, the CCS started an Action Research Circle, which supports projects ranging from a United Nations heritage scheme in Norway, to an energy community in Scotland, and an alternative no-bank peer-to-peer money system in Germany.

7.2.2 Beacon projects & reputation building

Another expert-level network is MonNetA (Krause, 2020), where consultants help others' initiatives. Community consultants, rather than independent experts, with experience running a successful scheme in a community could be better connected to new project initiators. E.g., RAMICS facilitates connections via practitioner sessions juxtaposed with academic sessions at its conferences.

We can benefit from such cross-sector connections in Finland. Business Finland is a suitable home for them if it is broadened to consider application in the community and not only the business sector. International connections across the whole field of community economics can help bring practitioner expertise to communities of use in Finland to share wisdom and knowledge.

We must ponder on the choice architecture and behavioral economics around implementation. Caution is needed over armchair economists and their popular texts, e.g., *Freakonomics* (Levitt & Dubner, 2011), and *Nudge* (Sunstein & Thaler, 2012), which end up looking like just-so-stories. Cherry-picking from

¹⁵⁵ <https://www.mutualcredit.services>

¹⁵⁶ See <https://offersandneeds.com/story/> for this Post Growth Institute creation.

the exciting options they raise may lead to taking a good idea out of context and forcing it into a new environment. Proper technology transfer considerations are needed for transplants to work.

Choice architecture relies on several things to offer a target cohort a realistic choice. The graveyard of community currency, and now blockchain, NFT (Non-Fungible Token) projects (Popescu, 2021), is filled with unrealistic aspirations made under the spirit of, My God, we must DO something!!! Consumer education is one of those things that really must be done. Why should one adopt a new funny money?¹⁵⁷ What is the advantage over regular money one is familiar with? Showing how the money opens up an opportunity or links to a benefit has happened with several beacon projects:

- **Sardex** local currency network (Fleischman et al., 2020; Sartori, 2017) has increased business efficiency. Greater employment and reduced expenses for businesses resulted from the business community's use on Sardinia. Fleischman learnt lessons and he seeks to spread and apply them more widely.

- **The Eusko** (Edme-Sanjurjo et al., 2020) worked so rewarded solidarity. Disbursements made it advantageous for the excluded to participate, in what could be described as a modern court of miracles, in the Basque country. There was successful institutional political participation. A scientific paper has shared the Eusko story more widely than the popular reports in the French press.

- **Chiemgauer** (Thiel, 2011) allowed the cross-subsidization of loans and non-profits. It thus acts as a financing mechanism in Bavaria. It gained wide-spread business support. It is innovating with new electronic delivery mechanisms. The project was started in a school, so cohorts of pupils are exposed to a working CC.

These projects operate in awareness of their cultural milieus and legal situations. They are well-planned. They are well-funded. However, we are looking at them through rose-tinted lenses. We need to look beyond their dazzling successes, to see how they adapted to challenges. Cautionary lessons can be learnt from other less successful schemes, such as the transition town pounds (Gilbert & Kenny, 2014). To avoid failures these are important to consider. Recognizing challenges experienced elsewhere can help prepare strategies to mitigate risks.

If we see a connection and tell people about it, is that enough? No, it is not, there must be a design element making it a default choice, or an accessible one. The *sysmä* failed partly because it was more difficult for staff in a business to process transactions, so they and customers preferred not to use it.

VTS points work as there is an assurance aspect. People can trust the traders who work on their homes to do a good job. The trusted trader aspect could be more explicit, and the use of points (in theory) expended so more transactions take place. Neocracy members hope that the same widening of use will apply to

¹⁵⁷ *Funny Money: In Search of Alternative Cash* (1999) is a book by David Boyle from HarperCollins that answers that question to some degree.

the Neco and Karma tokens. The founder asks “all the time” if he can pay in Neco. It is not a default choice many can make.

Outgroup introductions face the difficulty of being seen as insensitive to class notions; the Bristol Pound, to some extent, ended up being a loyalty scheme for the LOHAS segment (Szakály et al., 2015)¹⁵⁸ and not transformational for working-class Bristolians, who were alienated and unable to participate in using the currency. The Brixton Pound (Hileman, 2014) similarly, for potential users, failed to be “rooted in their reality”.

The reputation of a currency is important, and a community currency can gain positive brand reputation by having a practical way to be redeemed (Knapp’s (1924 [1905]:46) real satisfaction). Redemption might be for rice (as September (2019) reports – everybody eats rice) or tax / utility bills (as Parcell and others report, cf. Article III), or even institutional backing (e.g., a university or municipality). If a CC is tied to a particular political party or philosophy, it is vulnerable to changes in power. The Bristol Pound suffered reputational effects due to political associations (Petz & Finch, 2022).

Reputation can come from 3 communities of use:

1. **The business sector.** Businesses were a crucial factor in the *sysmä* being initiated, and in the scheme failing. Other schemes also depend on business support, for example, Scott Cato & Suárez (2012) detail how some of the business community undermined Stroud Pounds by launching a rival discount scheme called Stroud cheques. The dominant business culture norms operational matters of any endeavor to be instrumental for profit-making. It is hard to understand how a community economics scheme can operate within that culture’s logic. There is cultural incommensurability, with service provision that does not aim for growth, doesn’t engage in competition, yet creates more complicated infrastructure. However, bringing businesses on board can provide a way to encourage flows via their CSR schemes. They often have marketing budgets or tax breaks which cover the financial costs of a scheme. Consequent financial probity from business collaboration increases reputation and not only serves the practical aim of showing the relevance to the bottom line.

2. **Consumers / the people.** There is often a low level of financial literacy and great distrust of new money projects. In *Sysmä* newspaper articles with an airdrop voucher marketed the scheme, yet the *Sysmä*läinens had widespread skepticism about it. There was ignorance, e.g., local churches were more concerned with proselytizing than community development. I have seen debates around community currencies take on a gendered aspect with young men

¹⁵⁸ Lifestyle of Health and Sustainability marketing segment. “An important feature of the segment is that they consider all the three pillars of sustainable development (economic, social and ecological) in their shopping decisions. LOHAS consumers live their life health-consciously. Their devotion to sustainability is reflected in purchasing environmentally-friendly, socially responsible products. Besides this, it can also be claimed about them that they are early adopters and they are able to influence the opinion of their friends and family” (Szakály et al., 2015).

especially interested in cryptocurrency or computers (tech-bros)¹⁵⁹ dominating the discourse so children, the elderly, or other interest groups do not meaningfully participate. Schemes may offer little benefit to certain groups, e.g., babysitting services may not help single young people much. LETS or CC schemes dominated by such niche services are dysfunctional and suffer reputational damage. Non-users may conclude that “it is not for us.”

3. Political power / local authorities. A scheme's implementation must be sympathetic to the community and on message. VTS has a regular magazine for residents, a website and Facebook group, and a magazine supplement dedicated to the points scheme (Article II). Human interest stories demonstrate how the points can be used. Furthermore, other schemes need to pay mind to governance structures, so that the community of use feels it is their community's currency. For example, the Suomenlinna CC (Aubret et al., 2014) partially failed due to the lack of community ownership.

Together these communities make a 3-legged stool. Strengthening cooperation between them and gaining agreement can make it more likely that a currency has a community of use, and an environment of use too. Can I buy something with my CC? Can I pay taxes with it? Will my business have a business case to get involved, i.e., be profitable somehow if using it? What are the costs? Can we legally accept this CC for what we sell? Will the council accept payments in the CC? Will the council spend the CC into the economy? Will businesses spend the CC into the economy? These kinds of questions need to be answered with proper modelling and pilot schemes. Asking and answering these questions are essential elements of consumer education and not just idle curiosity.

Governance is crucial for anything to operate. CCs on a small scale need a single point of contact (as the *sysmä* had) where technical, operational, and strategic decisions can be made fast. A good model is a team (association, collective, group) acting autonomously within the framework of a document (constitution, plan, strategy), which can make agile decisions. The point of contact can be a real office / shop or a virtual one, but in a small community there should be a way someone can be reached who is the face of the currency. Within the team recording and sharing information helps efficacy (a good model is IT support in a big company).

The technical aspects related to flows of capitals should be planned. Pump in and pump out: The usage and when a money is used needs to be considered. Pooling must be discouraged, and circulation encouraged. Encouragement can be done by demurrage (as the Thiel (2011:267) reports the Chiemgauer does); by retiring the currency, as Place et al. (2021) reported the Lake District Pound did, or by fees or rewards which incentivize use (as the *sysmä* did for exchanging certain amounts). Here we can consider where money is used as to what an appropriate mechanism might be e.g., vouchers and preloaded cards given to

¹⁵⁹It is unclear if women are tech-bros or not. The tech-bro archetype is not confined to one gender. Even though it tends to be portrayed in the media as male, women could display homosociality in a male dominated group of tech-bros.

certain groups as special purpose money (as Calgary Dollars do). The MetaCurrency Project activists (Brock, 2018) thought a lot about flows. Lessons can be learnt from their online resources. Fundamentally, a place where money can always be spent on something people always want is a good idea, e.g., Brixton Pound via a café; sysmä had a local supermarket. Food offers are a good solution for the low monetary value transactions typically found in CC schemes.

7.2.3 Near money & points systems / special purpose money

Housing, education, and elderly care are among the ready-made application cases. Nature protection and cultural heritage offer further possibilities. Thus, a broad range of environments of use exist. To clarify how these might work, we can use simulacrum case study research (Article III) and investigate prior usage, e.g., fureai kippu for elderly care (Hayashi, 2012). We can mandate usage as a closed system. If you can only pay with points or tokens for a service, acquiring them is desirable, e.g., I had a “Cornish Penny” with “For the Accommodation of the County” minted upon it. What were the conditions for the issuance and redemption of this token? Perhaps it was the only way to pay for accommodation?

Like the meal tokens children had at schools in England for low-income families, such tokens carry a range of other connotations and consequences. They indicated deprivation; those with meal tokens were entitled to other support. There was a social stigma attached. Children would try and hide that they were buying their lunch with meal tokens (a negative current-see, revealing an anti-service), which means care needs to be taken with issuance. In this usage case, if buying lunch can only be done with tokens, they could be used for social leveling as the funding source would be unclear within a less class-discriminatory system.

A closed system or closed shop can be applied to businesses, requiring them to use a currency redeemable only in certain places, e.g., a scheme hospital workers take part in for services such as meals, car parking, and training. These systems existed in the past in the UK as truck schemes (Hilton, 1960), and were successful for business profitability during 19th century industrialization.

Restrictive mechanisms can encourage local spending, e.g., business grants given for marketing budgets by a local municipality to businesses, which can only spend them with those allowed to cash the money in. These may be other local businesses or council units offering marketing services, training, or auditing, which would allow businesses to decide their priorities within a limited range.

A business might have its own scheme for facilitating internal accounting and support between different units. Some businesses require every business unit to show a profit, which is hard for maintenance to do! A CC system could allow maintenance to charge other units and thus make a nominal profit.

7.3 A Network of Viable Villages in the Bioregion

Localized practical action should be implemented in the context of a meta-level strategy, development arc, or trajectory. A community economics scheme or project needs to be anchored in the bioregion to successfully make the great transition, which is the overriding current meta-level consideration. Within a settlement, project application must weave multiple capitals which contribute to that place's milieu. Linking financial with social and ecological capitals has been proposed (Costanza et al., 2015), and carried out as part of due diligence or Environmental, Social, and Governance (ESG) reporting (Gillan et al., 2021). The triple bottom line concept (Elkington, 2018) was influential in spreading the idea that accounting needs to be done in concert within the wider context of other capitals, and not only in an atomized, narrow financial accounting way.

Capitals of different kinds are poorly known about; let alone how they interact as currencies. Models and ontologies (Article II) offer possibilities for looking bioregionally at these different capitals and flows in an integrated way. Community currencies can link with these in some cases, but it is hard to use an anthropocentric technology to enable wildlife gain, see Petz & Finch (2023) for an attempt with Grow Wilder and nature gardens. The difficulty arises partly from a failure to look with a deep environmentalist ecological economics paradigm. Partly, it is because capitalism's fundamentals are based on accruing capital (growth) rather than encouraging balanced flows (dynamism). Capitalism is based on resource extraction motivated by profit, which has often led to a vicious circle. It is not based on maintaining cycles of resource distribution, thus enhancing ecological and cultural evolutionary processes in a circular economy of balance.

The loss of balance has been disastrous for rural communities. Loss has led to communities being atomized and estranged from bioregional watershed consciousnesses. Rural peoples are alienated from their relationships with place in a local environment. The local institutions and cultures that make up the social elements of rural communities are institutionally replaced by the nation-state. To move toward the virtuous circle of the resilience state, we need to restore the place community holds in our lives. Restoration can be done by engendering the emergent property, which arises from different flows interacting. We need to reveal those flows transparently, which we can do with current-sees.

A resilient state meta-level can frame the broad institutional environment, but the community level needs consideration too. Where can we best strengthen the ties of kith and kin? How might we operationalize a confluence of capitals to that end in a community of place? What is the appropriate area for a community of place? Is it a city district? Is it a central place with a hinterland? As a functional space, it could be, but it is best defined by the bioregion.

The village is one conception for human settlement within a bioregional boundary. See Article IV for a discussion of what a bioregion is. The Central Place Theory was developed by looking at an existing structure and its functioning in

modernizing Germany. Thus, its dynamic was modernization and planning for more city-based governance within a nation-state. Proponents of the paradigm did not include deep-time perspectives on how villages existed within the landscape,¹⁶⁰ which I suggest we should do in building a localized, forward-resilient existence.

Central Place Theory did not account for village death, senescence, nor indeed how villages as functioning entities existed over centuries, and in many cases, millennia. How did villages endure? And does this way of existence provide a sustainable model we can use as a prototype to organize at a larger scale? I say it does. How is an individual village viable? What are the flows of assets, money, and resources within and between villages that make this so?

Through the New Paradigm, we are looking at rural development, and counter-urbanization, or at least rural autonomy. The Earth Regenerators, with a bioregional watershed conscience, are shaping how we flow from current settlement patterns to more sustainable ones. We are not just the ancestors of the Indigenous people of the future, we are also the cultural ancestors of the culture, settlement patterns, and way of life of the future. By synthesis of counter-urbanization and rural resilience, we are looking at villagization. Here the unit of analysis cannot be one village or 'the village,' it must be the network and the interaction found in such a network, as there are emergent properties to be identified.

There is a question where we define the boundaries in what are open networks that interact with other open networks at supranational scales (say the EU or the Nordic countries). A delimitation to look at flows could be made by identifying several villages which cohere and share networking commonality by deeper analysis. There is evidence of thematic villages existing and functioning in concert to create such emergence in Austria (Nahrada, 2022). Hartola and Sysmä municipalities theoretically cooperate, but the power imbalance favors Sysmä, and Hartola has lost hope. Thus, in Central Finland, instead of the virtuous circle, the vicious circle is found.

There is some relevance to this thesis, in identifying how small-scale institutional economics functions and how that may relate to such villages. It facilitates consideration of alternatives to macroeconomic policy (which has looked at economies of scale and saving resources by consolidation and loss of diversity) and suggests tools for implementation at the viable village level (such as interventions to encourage more heterogeneity and cooperative interagency and sectoral working) for supporting larger-scale networks, as just described. Thus, a practical alternative to the old paradigm of regional, national development, or even EU territorial cohesion policies is posited.

The implications of an awareness of how an economy works in terms of size apply to these smaller networks. An internal economy can operate within a network of villages, irrespective of what is happening outside that network.

¹⁶⁰ The Weber brothers reached different conclusions. Alfred Weber (Weber & Friedrich, 1929) supported the concept of city centers with rural hinterlands; yet his brother Max Weber (1958 [1921]) indicated that control of the surrounding territories by a city was historically rare.

Local economies operated during medieval monasticism, with religious houses using merels as a functioning currency, to help provision workers with victuals (Kokabian, 2020). Monasteries had internal economies based on the idea of monks living under a vow of poverty. We can learn from these examples.

These cases seem romanticized and ignore other factors, like the likelihood that it was the bondfolk and employed workers who made monasticism viable (see Coulton 1989 [1925] for the reactionary Catholic church and serfdom). The presence of an external economy based on gold and silver makes us question if a merel-based existence alone could suffice. However, BookMooch operates on a system independent of the external economy. When we think of VTS points transacting with surplus labor to conduct talkoots and activities, questions over Schumpeter's critical figure arise.

How could we arrive at a suitable critical figure to base networked villages' economics on? Could we include population factors? Could the productive population and the capacity that it has to generate internal wealth be one way? Awareness of an accurate figure might allow us to facilitate different-sized economies to exist based on a bioregion's natural endowment. By networking across bioregions, we can imagine how the collective economy scales. Actioning something similar is envisioned by the mutual credit network ideas the Credit Commons Society has with the Credit Commons Protocol (Slater & Jenkin, 2016).

Here, the economy is limited by agreement. What that agreement is made on when it comes to mutual recognition is goods and services, as "the exchange being supported is the exchange of goods and services." (CCS FAQ, 2023). Agreement by perception means the only limitation is the amount of goods and services, not that exist, but that are (believed) exchangeable. They are related to the needs and wishes of the people exchanging them. Population size is therefore a factor in this community of use.

Thus, current-sees are useful in identifying where the flows are between people. Flows can be monitored in various ways. Flows can be tracked through electronic ledger records and periodically accounted for. Ledgers can be distributed and made transparent. They can be monitored by the flow of existences. If people are eating and living satisfactorily and we can watch that dynamically, the amount is not so crucial; rather, the balance of flows is.

By recognizing imbalance, we can facilitate a new dynamic to counteract macroeconomic predations. We can try and bring in a virtuous circle and at least identify the vicious circle and avoid managed decline to create viable flows and livelihoods. We can benchmark against other networks and flows to monitor how our efforts to build resilient communities are doing and if they are appropriate for the level of activity that the system is operating at, within the existing bioregional constraints.

Much of this subsection sets the institutional environment conditions and does not say how we practically implement these things. More research and more action research will certainly help here. However, we need to transfer examples of best practice from around the world. The Earth Regenerators need to follow the directions that Joe Brewer set with his practical actions, publications, and

collective work. Others need support too. I give ways to do that in Article IV. As we support the metalevel, we are building the cultural scaffolding for taking concrete steps, which I cover below.

7.4 Realpolitik for Community Economics

In the Realpolitik subsection, I suggest policies and procedures I would like to see. It is not my intention to justify my positions with fully worked-out arguments. My opinions are based on the impressions gained during the last few years of research and listening to others in the community economics milieu. Such a procedure is one that is concordant with the praxis of virtue ethics. Specifically, “The virtue of action can never be evaluated without observing the central desires, needs, possibilities of action, and position in relation to other actors in different situations. Virtues are therefore related to concrete action” (Eskelinen & Sorsa, 2011:122).

“According to virtue ethics, people are not always able to assess the consequences of an action or to understand how a universal rule should be applied in the complex situations of everyday life. Deontological and consequentialist ways of thinking always force you to commit these assessments, while in virtue ethics this is not always considered possible or even desirable” (ibid.). Nevertheless, there needs to be a guiding principle, the virtue. In prior sections, I gave theory and arguments for why we should work for resilient bioregions (which is part of an ecosocial virtue ethic) and how we can usefully operationalize bioregional resilience in the New Paradigm for rural development.

The trajectory of rural development should be self-reliance within the bioregion. It should aim for a communitarian, ecosocial existence in balance with the natural world¹⁶¹. Thus, the direction of movement given below is a start, but the policies and procedures do not go far enough in terms of radical change.

I want efforts to bring different flows, which will carry along with them welfare and move us closer to a forward-resilient eutopia, or at least to a Realpolitik stage that can be iterated from to draw nearer to a virtuous end. In this thesis, I focus on flows and CCs, though other community economics technologies have a role. UBI (as a stepping stone to a Universal Basic Guarantee), mutual credit systems (to move to a culture of sharing surpluses), commoning (to reach mutualism), and even no money economies should be considered.

Policy formation and instrumentation does not occur through reasoned argument alone. What happens, for a variety of reasons, is not attributable to rationality, science-led policy, or the best and the brightest’s efforts (Halberstam, 1973). Nevertheless, my proposals give a start to pondering on the promise within the possible of the ecosocial virtue.

¹⁶¹ I expressed this virtue’s sentiments in the Proclamation on Rural Resilience (Petz, 2017b:xxvi-xxvii).

- Tax reform. The collapse of time banking projects after tax changes (Eskelinen, 2018) revealed that there is not a good mechanism for innovative projects to interact with the tax administration. I want to see small working groups that look at fostering different scales and kinds of innovation and not killing them off with a one-size-fits-all approach.
- Tax-breaks. I want tax-breaks for financial innovation around small money schemes. These can be tax holidays, tax restructuring, or tax offsetting. The specific difficulties of rural finance should be taken into account. Relying on purely market mechanisms is not sufficient.
- Innovation promotion. I would like to see the fostering of a diversity of options. The development of the Finnish fintech sector was rapid and pervasive (see Article II). The same success can be replicated for the community economics sector.
- Incubation. I want innovation for community schemes incubated by Fintech Finland (Hallikainen, 2019) to make Finland a community forerunner via beacon projects in the same way we innovate for businesses.
- Nepotism. The hyvä veli [good brother] networks (Salminen & Mäntysalo, 2013) need investigating and reforming. While they are based on hidden social relations in Finnish society, they are known about and anti-corruption experiences from elsewhere can be technologically transferred to deal with them.
- Institutional reform. I want to see a better regulatory environment. A clear body that supports and advocates for community economics is missing. A government department or a quango with a specific remit to interact with all aspects from different sectors would be good.
- Standardization. NFTs that promise products and services are akin to crowdfunding which requires oversight to prevent fraud. Utility tokens or security tokens need international standards that clarify which services are bundled together and expected to be included. Standard setting is a process including jurisprudence and legal aspects, not only technical ones. Standards support business investment and development. Florian Goette of the Neocracy (see Article III) indicated to me that it was problematic to develop tokens, as in one country they were utility tokens and in another they were investment tokens, which have different requirements and costs¹⁶².
- Consumer security. Trading standards and oversight, with legal provisions for schemes to facilitate consumer choice and security are needed.
- Fighting fraud. There is a weather eye (and a lazy eye at that) watching out for fraud along with the stability of the financial system by the authorities, but it is inadequate. More police funding for cybercrime

¹⁶² To deal with this issue of regulatory arbitrage and standardize approaches the EU passed the MiCA (markets in crypto-assets) Regulation: (EU) 2023/1114, 31 May 2023 on markets in crypto-assets, and amending Regulations (EU) No 1093/2010 and (EU) No 1095/2010 and Directives 2013/36/EU and (EU) 2019/1937.

prevention is needed. It is necessary to improve the security of fintech systems, some of which means better security training for people.

- Deliberative planning. The development of cryptocurrencies should be part of a strategic plan. The strategic plan would be used to put policy into action. It would give assurances to developers so they can take calculated risks. It would allow for risk underwriting.
- Problem statements. A statement can give a proper, thick description of a problem. From the statement, we can envision a whole process with desired outcomes, which should then fit with the national resilience plan, different government programs at different levels, and the business sector.
- Advocacy for alternatives. At present, there is a view that digital tokens and connected systems are not useful¹⁶³. There are problems with NFTs, DAOs, and cryptocurrency schemes related to their speculative nature and poor financial regulation. Nevertheless, there should be marketing and consumer education (financial outreach in the manner of agricultural outreach) to bring these possibilities to the people.
- Forward-resilient financial policy. Finnish national polity is reactive. Community-based economics lacks proactive, reformist development. SMEs need better support. The legal institutions are not being developed fast enough or in a way so that they can be supportive, as they are not community-based. Such is my normative judgement as I am in favor of a more participative democracy.
- Forward-resilience for the community sector. I see potential when looking at cooperatives or associations and the laws for their financing, which could be extended to small projects exploring points systems, timebanks, or cryptocurrencies. Changing some of the requirements on associations could encourage an innovative turn in the third sector.
- Participative governance. DAOs for majority governance need a mechanism to ensure the desired governance really takes place, as found with registered associations and limited companies. Building a participatory praxis is not only about laws, but also cultures and community-educative outreach to structure collaborations by design.
- A culture of empowerment. Guidance and assistance are needed to help community economics projects run properly and seek the classic compromise between liberty and the libertine, rather than a much more restrictive libertarian conservative caution. Thus, a cultural change is needed. We need to build the cultural scaffolding to think and behave differently (Caporael et al., 2014).
- Application for diverse short-term purposes. The short-term nature of CC projects has benefits. Job-finding circles to create new cooperatives and intentional communities from a pool of the unemployed (perhaps

¹⁶³ "CCs weren't having much impact, then along came Bitcoin, the biggest distraction from reality in monetary history." 2018 and "if I believed in The Devil, I could believe that He invented Bitcoin just to confuse everybody about the real issues!" 2019, personal communications from John Rogers.

mutually creating a start-up) and then transitioning them into a different culture—a mutualistic active one rather than a receptive passive one—is an example. Such transitory applications are suitable for restoration ecology, migration promotion, and general behavioral modification.

- Vehicle development. I want to see social innovation via municipalities, B-corporations, community interest companies (CIC Regulator, 2022; Reiser, 2013), and profit-making firms having their own community-based economies and schemes. VTS does it. I want to see more schemes by other housing providers and other service providers.
- Digital money. A digital euro or some kind of e-money in Finland.

8 CONCLUSIONS

In my conclusions, I indicate the status of traditional community currencies. I suggest that CCs can act to mediate flows and as voucher schemes. I then round off with a contextualization for the scholarly application of flows and communities of use within an integral science perspective.

8.1 Deprecation of Community Currencies

My research questions implied a simple ask: Do community currencies work? We are beyond the golden age of community currencies. The move from paper- or coin-based systems of money toward the digital is the death knell for CCs as known. Some legacy systems survive from the golden age. The Chiemgauer still trades, the Eusko manifests solidarity, and the Hudson Valley Current introduced paper notes from a digital beginning. Yet, you cannot spend the Bristol Pound, nor the Brixton Pound, and the Lake District Pound foundered, even with institutional support (Place et al., 2021).

The latter three listed schemes can be grouped as “town pounds” (Petz & Finch, 2023), and only in one country, though there do not seem to be good counter examples from elsewhere to challenge my generalization¹⁶⁴. I regard technological innovation rather than regulation or insufficient demand as the main cause, according to Hileman’s (2014) reasons for the demise. I sympathize with the argument that these are merely systems of tokenization, and they are only representational token forms (CoreLedger, 2019) and not currencies as flows.

The form of tokens affects how flows function, e.g., “standard crypto currencies like Bitcoin do not support community building” (Antoniadis et al.,

¹⁶⁴ For example, in France, the monnaie locale complémentaire exists, but the schemes are increasingly digital and in any case are not their own monetary community due to restrictions on issuance and redemption, i.e., they must not replace the euro, change cannot be given in euro money or coins, they must be backed by euro, users need to register with an association, and they must be limited in geographical scope (Bureau CL 1C, 2016).

2018:211) and even LETS schemes may fail to increase cooperative behavior (Lopaciuk-Gonczaryk, 2019). Although NFTs might “create greater community and engagement” (Majer & Barbosa, 2022:7), it is the organization behind the technology that is significant. Culture and socialization act in a nexus with any underlying financial technology. Thus, raising the Polanyian question: Is human nature sufficiently resilient, regarding money relations, to resist transformation by technological influences at a societal level?

Digital is the future, and digital monies, cryptocurrencies, game currencies, and point systems are successful. They are related to fiat currencies whose digitalization and digitization is taking place. A closer look at the game and the fiat currencies shows close links to the US\$ and many are proxies for it. Once present, a technology allows behavior and culture to be enacted. It is an affordance (Article III). The digital monetary technology is provisioning certain money relationships, which are in nuance closer to homo economicus than the homo socioeconomicus of the old CCs.

The end of traditional CCs is a sobering conclusion. Advocates will question it and point to some of the existing systems. Others will argue that social technologies, just like other technologies, can have their proponents and that these forms can exist for some subcultures or communities. There are examples of equivalent deprecated community economic schemes. Burial societies, temperance clubs, and various immigrant clubs, e.g., Polish social clubs, were historically much more common. It is in replacement of function that I consider traditional CCs are superseded and deprecated, not that the human, and ecological needs have disappeared.

8.2 Mediation of Flows in Restricted Environments

The mediation of flows of different capitals can be considered under the financing question: Which mechanism do we use to mediate flows? Many social technologies can be used. One is basic income (Lehto, 2021). *Ring-fencing*¹⁶⁵ (Naqvi & Southgate, 2013; Schwarcz, 2013) or hypothecation (Grand, 2003), which control how finance is used, are others with merit. CCs (digital CCs too) can be used in such ways. I lack econometric data to convincingly argue these ways are best or even economically viable compared with fiat currencies as sources of liquidity in the policy mix. Belmonte et al. (2021) also reported that functions claimed to be advantageous to CCs could not be assessed in their intervention with the REC local currency in Barcelona due to the way they executed their action research.

¹⁶⁵ Ring-fencing is the separation of an operation by backing it with an asset or another system so that it is financially separated from all the other activities carried out by an operator. So a credit union might issue CC notes, and every CC note issued would have an equivalent amount held in an escrow account in fiat. A credit union could hold another asset, e.g., land, so that were the credit union to go bankrupt, the land would still be there to back the notes.

What about rural areas? Answers in the past revolved around paper / coin / card systems. These are deprecated technologies, and instead, contemporary queries revolve around the digital. Can a digital community currency operate in a rural area? Can it help in building cooperation between economic actors or facilitate the movement of flows of capitals? The *sysmä* case demonstrated that a digital CC can technically operate in a rural area.

CCs can replace general purpose money with restricted special purpose money in a rural area. To stimulate certain effects or behaviors, channeling funds by restriction is how we can do it; as a council worker told me in *Sysmä*, “It’s our money, and if they don’t want it, they don’t have to spend it.” Her words suggest that cooperation between peers was not happening. Rather, a command-and-control culture created an obstacle to a functioning CC ecology. Other communities, which are more cooperative, reached another state of affairs.

The peer-to-peer nature of book-sharing services enabled collaboration, community-building and innovative flows in the digital world. This digital culture spilled over to physical meetings with *BookCrossing* and *ReadItSwapIt*. The *VTS* points system evidences that a community can use a CC to change the relationship with the service provider, the built environment, and perhaps raise ecological consciousness. Users have become more concerned with taking care of the housing as their property with their points. Residents are extending their considerations to general care about the wider environment via the *ecoteam*¹⁶⁶.

8.3 Vouchers for Services

CCs can work within restricted economic environments, as seen with the *VTS* points system, which defines where points can be used. Restrictions were tried in a rural area with the *sysmä*. However, road communities found it difficult to spend the money, as suppliers were unwilling to take it. *VTS*’ system stimulates democracy, ecological thinking, and happiness economics. The *VTS* points system flows in concert with the institutional arrangements. Nevertheless, forward-resilience is being built in a local community rather than at the nation-state level. The desire to get flows over time of commitment and care toward the community and property within that restricted environment is satisfied.

Here, control over how and where money is spent is akin to voucher schemes that restrict the purchase of childcare, education, sports services, or even lunch to certain providers. There is a semblance of choice, but it is restricted and politically limited. See *Bohnenberger (2020)* for an exploration of different voucher types and their applicability.

If we accept that voucher-type schemes are where CCs have a place in choice architecture, then how do we measure their efficacy? We must look for

¹⁶⁶ I do not want to overegg the pudding here. Other factors are significant, the change in society, the democratic structures of *VTS*, a rising ecological consciousness, and the quality of management of the properties. Nevertheless, residents told me that they liked and used the points and took care of their properties by using them.

behavioral change or an increase in other capitals. We could benchmark against another community, even in a time series in the same community. Is there less litter? Have we had more swimming-pool visits and now have fewer unfit people? Is there evidence of wildlife gain? Are there fewer non-rental days in the municipal social housing system due to lower turnover? Are more wholesome meals eaten by seniors, if they can only use the tokens in the OAP café?

These limited metrics are directly causative and show quantitatively how successful a policy intervention is. Are there key metrics we can look at to see if cumulative causation is taking place systemically? Is there evidence of counter-urbanization, e.g., the number of young adults in a catchment? Is the number increasing? Rising house prices or other market data may be indicative. We could benchmark different interventions to see. Is helicopter money better than fancy goods, e.g., a car, or subsidized housing? Instead, a community currency can be given as special purpose money by restricting the possibilities to spend it. Evidence of spending and velocity on key aspects can measure usage, but the effectiveness of creating a virtuous circle needs more analysis.

8.4 Context of my Research

So far, these conclusions are based on what I found out during my doctoral research, and over the last 2 decades. I became aware of CCs in the 1990s while leading a Friends of the Earth local action group¹⁶⁷. Conversations with Clive Lord on citizen's income within the Green Party and with John Rogers, Edgar Cahn, John Waters, and others in community economics informed me more.

Consequently, the conclusions indicate my current views of community currencies within community economics (what they are good for) and can be used to guide practitioners or politicians to consider if they have a place within their toolbox for community building. In short, CCs do work, but so do alternatives. The real thing that works is subsidiarity and sovereign political decision-making, which only partially belongs to rural areas and local communities. However, I now contextualize specific aspects of my research of use to the scholarly community.

A variety of scientific movements were influential in the 20th century, capturing a perspective and then employing it to bring dynamism to a group's thinking along those lines. Variety per se is nothing remarkable. The art world is full of art manifestos, differentiating via a formal statement, which artistic practitioners then employ to great effect by following the tenets so outlined.

Art movements that touch on the field of community economics include William Morris' Arts and Crafts movement (1901 [1889]). Morris's work connects with the idea of artisanal, small-scale skilled craftsmen, which connects with the praxis of rural skills; Kakko, Nordlund, and Goette apply their skills in such a way. Situationist art, where the serendipity and individualism of the flâneur (Seal,

¹⁶⁷ Rutland Friends of the Earth ran a LETS scheme connected with recycling then.

2013) are replicated in the way that I observed in my amblings through different areas of community economics. Surrealism (e.g., Breton (1924), where the construction of imagined realities is explored via utopian futurism or the construction of simulacra to explore ideas, was relevant too.

In science, manifestos are rare, although I wrote one; see Petz (2014, 2017b). Many scholars claim they are post-modernists or follow logical positivism without giving an actual statement. In one course of the taught doctoral program, which this dissertation relies upon, we were tasked to give our positioning. Mine was as an integral thinker. There are those who are bold enough to give consideration to their positioning. Barker et al. (2023) give a range of “big picture thinkers.” The application of pattern languages from pattern science is another case (Leitner, 2015). An alternative to the conventional framing comes from General System Theory (Bertalanffy, 1972). Related to these positions is the idea of cybernetics, and ‘in-between’ interdisciplinary science in their perspectives. These ideas are easily conflated, and adherents may see some similarities. Even so, they hold distinct perspectives and are separate movements.

The ideas I give nestle within different traditions or schools¹⁶⁸, but I do not want to go beyond linking them with community economics, as that would be a hasty conclusion. I feel that by nestling them, some of their essence would be eroded. Data loss is a danger that I saw manifested with the indigenous Karen people’s perspective of “walking your talk,” when I heard in Thailand a Karen man tell me of their perspective of living their truths, and a westerner then summarized the Indigenous wisdom for their own Eurocentric understanding. The essence of communitarianism and even ecosynergy with the wider forest landscape in which Karen society is grounded was lost by the process of individualization. ‘We’ became ‘you and your way’ and not the more inclusive ‘us and our way.’

My research explores two major findings with scholarly applications. Both have uses beyond community economics. First is the concept of flows and how flows are mediated and seen. Second is the concept of a community of use and its applicability in an investigation, and action research.

8.5 The Pattern of Flows

The term ‘currency’ contains within its very etymology the idea of an asset flow (Article II). The flows of assets as capitals within a small community of use and how they can be mediated to give health to that community is of major

¹⁶⁸ From an economic school perspective, this might be heterodox economics. Lee (2009:ii) writes of how “the intellectual agendas of heterodox economists have taken a decidedly pluralist turn. Leading thinkers have begun to move beyond the established paradigms of Austrian, feminist, institutional evolutionary, Marxian, post-Keynesian, radical, social, and Sraffian economics – opening up new lines of analysis, criticism, and dialogue among dissenting schools of thought.” So, there is no natural economic home. Similarly, placement within the traditions of ecology or sociology is unclear.

importance. So we want to look at the flows. Samuelson (1997) and Schumpeter (in Klausinger, 1990) indicated a veil lies over money, where currency flows are only partially visible. Observation of the flows is obscured. How can this opaque phenomenon be examined? What are the implications of an imperfect examination?

The dissection of a body naturally reveals the elements that the body is made of, yet vitality is lost upon dissection. Life is only visible in concert with active processes. The vitality within the body of a currency system is made clearer with current-sees. Furthermore, the confluence of flows as a currency system can be captured through a pattern language of currency. Such a pattern language can and should not be limited to one pattern describing one element. Rather, it forms part of an ecology of flows which interacts with other pattern languages that dynamically capture society, and human existence within the social environment so studied.

Certainly, the study of the milieu, pattern science, and even the connections between these and systems existed prior to this thesis being written. Their application to community currencies, and how to do that has not, to my knowledge, been so widely understood. How we might do that and bring in the social human element rather than treating individuals broadly the same is beginning (we started making a pattern language of CCs in the Credit Commons Society). This is a realistic endeavor, as some work on cohorts and how they behave differently within the same community currency exists.

Nakazato & Lim (2020) show the psychological health affects cohort formation and thus usage relies on mixed cohort interactions; Mattsson et al. (2023) write of a “cohort effect” where “latent economic ties” are important determinants of different cohorts’ economic behavior. In my work on Bristol Pound (Petz & Finch, 2023), I saw different usage patterns between the individual and business cohorts of the CC. BookMooch has data to show cohort usage variations (new users, established users, and inactive members) beyond merely network effects of time series data for the whole scheme.

These cohort interactions can be mapped and thus produce a pattern language for CCs based on individual patterns. With distributed and open ledger digital records, a more econometric approach to identify sick or healthy economies at the community level can be taken by such cohort analyses when comparing patterns showing the vitality of CCs.

To return to the body analogy, the body needs food, water, air, and social interaction to thrive (Article IV). A community currency must look at the equivalent as part of its ecosystem. It is important to consider both the biotic and abiotic aspects. An exploration of the other major finding is the place to do that.

8.6 The Community of Use

The second major finding is that of the community of use. The term ‘community’ is widely used in ecology, geology, social science, and elsewhere. In delimiting it

as a community of use, there is a precedent with the idea around a user community, which can be reduced to users. Yet 'user' and the way a user community is thought of, misses a subtlety that I try to capture.

In the common usage of user community, the word community is used to just group anyone using a product (the abiotic) and could be changed to group, thus a user group. In my application of community of use, there is a larger focus on the community aspect. Within that focus, reciprocal arrangements between users in the rest of the community are implied. Relations are manifested with each other, not just with one product they all happen to be using.

Reading circles give a good example. Members of a reading circle, for example, members of ReadItSwapIt (RISI), a book-swapping service in London operated similarly to BookMooch, swapping books with each other via post or meet-ups. The book wishlisting function, for exchanging books, has died off. The members' relationships with each other over the books (the abiotic) were distanced, without interactions over the books' contents.

However, RISI members started several book circles (peppercricket, 2022). The few members (around 6-10) in each circle would, with a coordinator, select books, and then once a month the books would be passed on to the next in the circle. Notes would be written on a card (a current-see) left in the book by the previous reader. At the end of the circulation, the books returned to the original holders. All the members of that circle would be connected through the books they had read, with everyone having written on each book's card. That community of use would have a mutualism and no longer be acting autonomously.

Such communities of use can be looked at to see how a small community is functioning. In such analyses, it is made explicit who the key actors are, the nodes, the flows, and what is flowing. It is this conceptualization that identifies community and larger networks, perhaps in aggregate society. Identification has application in exploring community economics and clarifying the deeper connections in a dysfunctional group for interventions.

It adds to the ideas behind raw velocity to give a more nuanced take on the balancing of flows. Community currency scheme operators have looked at the balancing of flows to avoid pooling, stagnation, and consequential death. These problems are found when a few are dominating as recipients of a currency or there are failures in spending flows. Identification at different levels of granularity is possible, and thus so are tailored responses.

8.7 Future Application and Theoretical Research

The community of use helps researchers define the population studied and gives a boundary to a study. Other actors or stakeholders who may not be users (the abiotic are included here), but are significant in such analyses should not be excluded. When using flow science, it is important to consider which phenomena are observable to see how flows interact and manifest.

Flows can be modeled mathematically. For humans (the biotic), there are necessary figures and modes, which might be thought of as colors, that combine for the success of a community currency. Visualizing those colors, and then seeing or mathematically modeling them, is possible using big data approaches (see Nishibe, 2019 for the idea of “Light-Color money” and thus a way to do this). Once we are aware of flows, mediating them via various interventions is more viable. Then the task lies before us, to create happy, ecologically wise economies.

Such forward-resilience needs exploratory research using pattern science, the social sciences, and other disciplines. It is an integral science endeavor which may not fit well in one discipline. Beyond the science lies the application of what is learnt, to turn science into technology, a social technology. Providing cultural scaffolding and signposts for successors to build a forward-resilient culture is the purpose of this exploration. It is part of the endeavor to make the great transition, so that we can be worthy ancestors of the Indigenous peoples to come.

YHTEENVETO

Tässä väitöskirjassa kulminoituvat ymmärrys meitä ympäröivästä todellisuudesta, sekä tulevaisuuden pyrkimyksistämme. Väitöskirja nojautuu ekososiaaliin hyve-etiikkaan, painottaen maaseudun resilienssiä kaupunkien sijaan, rakennettaessa elinvoimaista ja ekologisesti kestävää eli resilienttiä yhteiskuntaa pohjoismaisen hyvinvointiyhteiskunnan perustuksille. Meidän on mietittävä, kuinka elämme yhteisöissämme niin, että selviytymisprioriteettimme täyttyvät. Yhteisömme ovat kytkeytyneenä niiden sosiaaliseen ja ekologiseen ympäristöön. Tästä johtuen haluamme tarkastella pitkällä aikavälillä energian, resurssien ja ihmisten virtoja, jotka muodostavat ympäristön kanssa ekosysteemin.

Varhaisempi ekologian määritelmä on nykyisin kaventunut tarkoittamaan ainoastaan talouden näkökulmaa. Tarkasteltaessa taloutta, jota aiemmin kutsuttiin paikkakunnan tasolla poliittiseksi taloudeksi, tarkoitti sen laajempi merkitys paikallisen yhteisön talouden lisäksi myös sen käytettävissä olevia keinoja ja voimavaroja. Sosiaalisen ja ekologisen ympäristön asettamat selviytymisen perustarpeet haastavat meitä ajattelemaan uudelleen tapaa millä elämme ja toimimme yhteisöissämme. Tämä johtaa tarpeeseen tarkastella ekologisia linkkejä energian, ympäristön resurssien ja ihmisten osalta pidemmällä aikavälillä.

Tämä johti vaihtoehtoisten yhteisöjen muodostamaan kirjoon Suomessa. Ydinkysymys on se, kuinka voimme käyttää vaihtoehtoisten yhteisöjen löytämiä keinoja luomaan maaseudun renessanssi ja rakentamaan resilientti eli kestävä, kantokykyinen ja elpymiskykyinen bioalue. Eräs kiinnostava työkalu on yhteisövaluutta, jota myös kutsutaan paikallisvaluutaksi, sekä rinnakkaisvaluutat. Näitä eri valuuttoja tarkasteltiin tapaustutkimuksessa, joka kattoi seuraavat valuutat:

i) Neocracy, joka käyttää Karma-, Neco- ja Collexa kryptovaluuttorahakkeita eli tokeneita, jotka käyttävät? pinoketjua. Niiden pyrkimyksenä on tuoda ekonomiset-, poliittiset- ja sosiaaliset järjestelmät pois rahatalouden piiristä osana Vihreää Siirtymää?

ii) Pisteet kotiin pisteiden keräysjärjestelmä, joka on käytössä VTS vuokratulosäätiössä Tampereella ja tukee VTS:n ”vakaa perusta hyvälle elämälle” eetosta. Pisteillä ansaitaan kodin kunnostusseteleitä palkkiona sääntillisestä vuokran maksusta.

iii) BookMooch, kirjanvaihtopalvelu, joka perustuu smooching- ja mooching pisteille.

iv) BookCrossing, jakamistalouteen perustuva kirjanvaihtopalvelu.

v) sysmä, paikallisvaluutta, joka oli Sysmän kylän QR-koodilla toimiva hyperpaikallinen valuutta, jota käytettiin kirjanpitojärjestelmänä kannustamaan paikallista kaupankäyntiä ja stimuloimaan endogeenista kasvua Sysmässä.

Tapaustutkimuksesta on selkeästi havaittavissa se, että yhteisövaluuttoja käytetään keinona luoda resilienssiä. Johtopäätös on, että resilienssin rakentaminen onnistuu, jos sosiaaliset edellytykset ovat sille suotavat. Osaa ottava toimintatutkimus osoitti, että VTS:n asukkaat, jotka käyttävät sen pistesysteemiä yhdessä

osallistavien demokraattisten rakenteiden kanssa, kokevat yhteisöllisyyden tunnetta.

Yhteisövaluutta yhdessä demokraattisten rakenteiden kanssa luo resilienssiä. Vastaesimerkkinä toimii Sysmä, jossa ruohonjuuritason osallistumisen puute, johti hankkeen ja resilienssin rakentamisen epäonnistumiseen. Lisätodisteita osallistavien rakenteiden ydinroolista yhteisövaluuttojen toimivuudesta resilienssiä rakennettaessa löytyy Earth Regenerators ryhmältä. He käyttävät Vivero sovellusta ja SEEDS kryptovaluutta ekosysteemiä, joiden käyttö luo mahdollisuuden maailman uudistamishankkeille, joita ryhmä toteuttaa. On liian varhais-ta sanoa hankkeen vaikuttavuudesta tai riittävydestä pitkällä aikavälillä, jota tarvitaan resilienssin lisäämiseksi tulevaisuudessa. Emme vielä tiedä, kykeneekö se rakentamaan erilaisen kulttuurin.

Oli miten oli, BookCrossing- ja BookMooch käyttäjien haastattelu osoittaa, että yhteisövaluuttojen ilmentävät varavirrat voivat tukea kulttuurillista muutosta jakamistaloutta kohden. Kontrasti näiden kirjanvaihtopalveluiden välillä osoittaa, että osallistava demokratia ylläpitää tiedon ja hyödykkeiden virtaa ja rakentaa yhteisön. Näitä tietoja voidaan soveltaa suoraan käytäntöön luotaessa sosiaalipolitiikkaa, joka tukee sosiaalista käyttäytymistä, kuten resurssien jakamista, yhteisestä omaisuudesta huolehtimista, sekä luotsaa pieniyhteisöjä kohti molemminpuolista kulttuuria.

Konseptuaalista kehitystä tapahtui tutkimuksen aikana. Valuuttavirrat hyväksyttiin symbolisena järjestelmänä ja niiden hyödyllisyys tunnistettiin paikantaessa eri varavirtojen liikkeitä, esimerkkinä tieto, taloudellinen pääoma ja kulttuuri. Kun tietoisuus virroista on olemassa, voidaan niitä valvoa. Tapah-tumiin voidaan puuttua tai vähintään vastata varavirtojen muutoksiin, kun niitä kehittyä.

Utopistinen taipumus tarkoittaa tilannetta parantavan vaihtoehdon valitsemista. Ruth Levitas kutsuu sen valjastamista ja käytäntöönpanoa metodologiseksi utopianismiksi. Yhdyn Levitaksen mielipiteeseen siinä, että meidän tulee suhtautua utopioihin vakavasti. Meidän tulisi edetä ajatuksen tasolta toimintaan, eikä vain flirttailla ekonomisia-, sosiaalisia- ja ekologisia järjestelmiä yhdistävien jänteiden sulauttamisella. Metodologisen utopianismin käytännön toteuttamista vasten kehitettiin tapaustutkimus.

Toimintatutkimus on usein tarpeellinen siirryttäessä konseptuaalisesta aktuaaliseen. Toimintatutkimus valittiin lähestymistavaksi Joensuussa sijaitsevaa NomadTown tutkiessa. Väitöskirja sisältää raportin NomadTown hubin kehityksestä ja siihen liittyvästä tutkimuksesta. Suomi tarvitsee lisää resilienssi-hubeja tehokkaan verkoston luomiseksi.

Väitöskirjan tieteellisesti tärkeät, johtavat teesit ovat yhteisöteesi ja rahateesi. Yhteisöteesin mukaan käyttäjäyhteisöjä voidaan rakentaa ja näiden yhteisöjen avainhenkilöiden avulla yhteisöt voivat kehittyä kestäväan suuntaan. Tämä toteutuu tukemalla ja linkittämällä yhteisöjen sisältämiä avainhenkilöitä laajempiin verkostoihin muutospotentiaalini synnyttämiseksi.

Rahateesin mukaan rahan liike ja sen liikkeen dynaamisuus, tekee rahasta valuutan. Valuuttaa voi ajatella varavirtoina, siis varojen virtaavana liikkeenä

samanaikaisesti toisten varavirtojen kanssa, muodostaen valuuttajärjestelmän. Näin ollen valuutan määritelmä on rahan eloisa liikehdintä.

Yhdessä nämä teesit voidaan tulkita olemassa olevan tieteellisen ymmärryksen kanssa integraalititeen avulla. Erityisesti rahateesi liittyy Joseph Schumpeterin suhdannesyklaritauksen taustalla oleviin ajatuksiin ja Gunnar Myrdalin kehää kiertävän kumulatiivisen kausaation teoriaan. Yhdistän tämän edelleen ekososiaaliseen hyve-etiikkaan tai velvollisuuksien etiikkaan, joka löytyy monista alkuperäiskansojen näkökulmista.

Olen samaa mieltä Schumpeterin kanssa siitä, että on olemassa suhdanteita, jotka vaikuttavat paikallistalouteen. Sitä vastoin olen eri mieltä kriittisen luvun olemassaolosta, joka antaa mahdollisen maksimirahamäärän järjestelmässä, joka perustuu kiinteään omaisuuteen, kuten kunnan määrään ja staattiseen väestöön. Uskon, että väestödynamikkaa ja väestön vuorovaikutuksia voidaan muokata paikallisesti, ja että Myrdalin ehdottama hyveen kehä voi luoda uusia ominaisuuksia.

Uskon, että vuorovaikutuksen virrat muodostavat uuden tilanteen, joka johtaa uuden kriittisen luvun iteraatioon. Todisteena tästä on hyveen kehää vastakkainen noidankehä Suomessa. Taantuma, jossa asuntojen hinnat olivat laskeneet, koulut vähentyneet ja palvelut heikenneet, joten varavirrat vähenivät, sekä valuutta ja rahamäärät pienenivät. Näin laudoitettuja ikkunoita rakennuksissa ja kuulin valituksia asukkailta ja paikalliselta toimittajalta kylässä tutkimusta tehdessäni. Toivonokkaampi lopputulos on nähtävissä VTS-asumisessa. Siellä on vähemmän alkoholiongelmia, paremmin huollettuja asuntoja ja enemmän yhteisöllisyyttä, kun virtauksia on kannustettu.

Mielestäni yhteisön varavirtoja näkemyksenä voidaan soveltaa suppeasti tai laajasti. Laajempi soveltaminen on tietovirtojen, sosiaalisen ja kulttuurisen pääoman, ei vain taloudellisen pääoman, huomioon ottaminen. Nämä kaikki ovat tärkeitä ja välttämättömiä havaintoja tehokkaan politiikan kannalta. Tämä tapahtuu VTS-, BookCrossing- ja Neocracy-tapaustutkimuksissa. Virtojen seurauksena on rakennettu uusia kulttuureja, joita on ylläpidetty harkittujen rakenteiden avulla. Tällaiset rakenteet ovat demokraattisia toimintamekanismeja, kuten asukasdemokratiaryhmät. Myös uusia alakulttuureja on syntynyt.

Tutkimukseen osallistuvana tutkijana väitöskirja on raportti toiminnastani osana tutkimusmaisemaa, miljöötä. Se on myös minun miljöönäni. Käyttäjyhteisö, johon osallistuin, ei ollut ainoastaan yksi yhteisö, vaan tutkimuksessa oli mukana erilaisia käyttäjäyhteisöjä, eri yhteisövaluuttoja ja käsitteellisesti erilaisia varavirtoja. Väitöskirja palvelee paitsi raporttina, jolla on instrumentaalinen tarkoitus tohtorin tutkinnoissa, myös tallenteena osallistumisesta tutkimukseen sen osana. Tutkimuksen on tarkoitus viitoittaa tietä ja toimia rakennustelineenä kestävästä kulttuurin kehittämisestä eteenpäin. Kulttuurin luominen on osa pyrkimystä suureen muutokseen, jotta voimme olla tulevien alkuperäiskansojen esi-isiä.

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APPENDIX: THE NEW PARADIGM OF RURAL DEVELOPMENT

Table 4 New & Old Paradigms Explicated

New Paradigm "Rural Development"	Old Paradigm "Regional Development"
<p>Networked Rurality. See Carter (2013:19) for some examples, e.g., the European Federation of Towns and Municipalities of the European Union (CTME).</p>	<p>Growth-pole Theory. "Small and medium-sized cities as important nodes with diverse development potentials The importance of small and medium-sized cities for their wider region depends also on the territorial structure of a region. In more sparsely populated regions they can act as poles for development of rural areas and provide services of general interest... Nonetheless, unless cooperation becomes more intensive, both between individual towns and between towns and their hinterlands, small and medium-sized centres are not able to play the role of important nodes." (Damsgaard et al., 2011:54).</p>
<p>Villagization of urban centres. Villagization is the corollary of replacing a strong centre with a more distributed governance. So far decentralization is an idea in many places, yet is considered in policy circles in India (Franz Nahrada personal communication 3.5.2022). It has appeared in Green Party ideas such as the 15-Minute City (Moreno et al., 2021) or the concept of London as a network of villages rather than a metropolis (Neal, 2003). Dower (2013:44) hinted at a more disparate policy (through the mechanism of regional development) by calling for "effective cooperation between leaders in towns and in rural areas. Such cooperation is normal, and readily achieved, within sub-regions which have smaller towns as their focus. It is not so easy in the context of larger towns and cities, where urban interests and urban thinking may be dominant, and particularly where a strong administrative boundary is drawn tightly around the city. In such context, the role of regional development strategies may have crucial importance, in ensuring that territorial development policies give equal weight</p>	<p>"City" Central place as a strong centre. "Urban centres securing the availability of central functions in rural areas. Towns in rural areas are important centres ensuring universal access to a variety of services, particularly in sparsely populated areas (both remote and internal rural peripheries). At the same time, the ongoing diversification of the rural economy in many areas widens the functionality and role of rural cities as development poles accordingly and emphasises their importance for regional development. The development of economic clusters based on local assets combined with the use of new information technologies is a key element in this respect, which may be boosted by partnerships between rural territories and their urban entities. To support rural areas and their residents and businesses to make use of what the towns can offer, there needs to be good accessibility to urban centres." (Damsgaard et al., 2011:55). And "European cities are key actors for smart, sustainable and inclusive growth, a high proportion of financial support is allocated to them. Cities are also providers of services</p>

New Paradigm "Rural Development"	Old Paradigm "Regional Development"
and appropriate attention to both the urban and the rural areas".	of general interests, making them important partners for the EU and national level development policies" (66).
Flows are distributed between varied nodes. "It is increasingly realised that governments, at all levels, have a major role in delivery of common services, but that they cannot alone meet all societal needs. Financial pressures, and public reactions, are forcing authorities to recognise that large parts of the action must lie with the corporate and civil sectors. This is notably true in rural areas, where small, scattered or isolated communities depend on a significant degree upon communal self-help" (ARC, 2010:17).	Flows are to and from the centre. "Cities are described as 'the engines of growth,' and rural spill-over benefits, driven by the increasing interconnectedness of functional areas, are assumed to follow. However a poorly developed, or implicit, rationale conveys a risk that implementation of policy to support urban-rural linkages will tacitly draw on anachronistic stereotypes, rather than acknowledging the twenty-first century realities of a globalised rural economy and society" (Copus, 2013:7), see Copus & de Lima (2014) for the reality.
Thematic networks are spatially dispersed and synergistic / complementary, e.g., Rural Policy Council (MANE) in Finland. "MANE can if needed set up separate fixed-term and cross-administrative working groups and invite individual experts or representatives from different administrative branches or expert organisations to join them. Thematic networks under the authority of MANE shall support the implementation of the tasks assigned to MANE" (Husberg, 2021) also see Dower (2013:48-9).	Master-slave / Parent-child relationship. Called out by Dower (2013:43) as "a general pattern of clear division between the operational programmes operated (on the one hand) by Ministries of Regional Development and (on the other hand) by Ministries of Agriculture and Rural Development. Some Ministries of Regional Development appear to operate on the principle that cities are the only "engines for growth;" that the major developmental effort should therefore be focused wholly upon the towns; and that the rural areas will benefit from that effort by the process of "diffusion"."
Finance arises from different distributed sources (under the aim of synergy or complementarity (Singleton, 2010), creating economic resilience and opening up possibilities, e.g., integrated policy re rural development as exemplified in Târnavă Mare, Transylvania (Hudson, 2009).	Finance arises from central taxation / grants, which are often restrictive e.g., European Agricultural Fund for Rural Development (EAFRD) (see Dower (2013:35).
Policy creates enabling environment for diverse local adaptations, e.g., ECOVAST Strategy, which calls for "Rural Development policy by a flexible approach, enabling local communities in civil society to influence local policies, methods of applying finance and implementation" (Turner et al., 2008); "Rural development is a public activity which cannot be standardized" (Dower, 2013:40).	Policy is rigidly decided centrally for regional implementation, e.g., "Moreover, the agencies through which the Rural Development Programme is delivered – national Ministries of Agriculture, regional authorities, LEADER groups or other sub-regional partnerships – are at present seldom empowered to call down funding from other EU Funds, so that efforts to link the different programmes at territorial level are frustrated" (ARC, 2010:18).

New Paradigm "Rural Development"	Old Paradigm "Regional Development"
<p>Adaptable planning. "The development of new ways of organising territorial governance and planning (including participatory measures), and partnerships between the different levels of administration and other relevant stakeholders, is recommended for proper planning and organisation of services of general interest from the European level to the municipal level." (Damsgaard et al., 2011:66). This can be further developed with flexibility and adaptation to varied situations. Some Local Action Groups were flexible, e.g., Italy (Integrated Territorial Projects) and France (Pays) with the use of LEADER project funding (Lucatelli & De Matteus, 2013). It by implication allows dynamic planning, which does not restrictively have to match EU 5-year plans and fixed parliament timetables. In Finland, dynamism operated with transition periods allowing existing projects to be continued into the new funding periods for some EU-funded projects (Selkänaho, 2021).</p>	<p>Fixed planning. "At the level of Member States, cities and regions, it is important to define tailored, integrated concepts, goals and tools for enhancing territorial cohesion. These should be in accordance with the EU level approach and actions, and in line with the subsidiary principle and the place-based approach. ... Content-wise however, the resulting policies should be in line with the TA 2020 principles [Territorial Agenda of the European Union], and should contribute to the territorial cohesion of the EU. Member States are not encouraged to develop separate policy for territorial cohesion, rather they should integrate the territorial considerations into their own national sector and integrated development policies and spatial planning mechanisms." (Damsgaard et al., 2011:84).</p>
<p>Delegated responsibility empowerment, e.g., capacity building in the case study: Tackling rural poverty in Cserehát, Hungary (Dower, 2013:37).</p>	<p>Command and control governance. "However, the potentials of diversity can be capitalised only with proper institutional ability (capacity and knowledge) to reveal and systematically consider the territoriality in decision making and planning." (Damsgaard et al., 2011:50).</p>
<p>Participative communitarianism / Multiagency collaboration, e.g., Coed Cymru where organizational proximity in the wood sector operates across Wales (Sambeteanu & Dower, 2011).</p>	<p>Representative democracy / Centralized control, e.g., "In 2007 under the German EU Presidency in Leipzig, the Ministers responsible for spatial planning and development had agreed on the Territorial Agenda of the European Union (TA). Together with TA another document was prepared with the title "Territorial State and Perspectives of the EU" (TSP) providing evidence base for the TA... It is important to point out that the updated TSP [2011] is not discussed by the Ministers - the document provides them with adequate background information about territorial and sector-oriented status and processes of the European Union." (Damsgaard et al., 2011:7).</p>
<p>Endogenous economics in the village (locality) - high economic diversity, e.g.,</p>	<p>Exogenous economics in the village as part of a regional system - low economic</p>

New Paradigm “Rural Development”	Old Paradigm “Regional Development”
<p>“small enterprises...[and] reviving rural economic activity through diversification of agricultural buildings and land” (Turner & ECOVAST, 2013).</p>	<p>diversity based on productivism, which is commonly lacking added value, e.g., a jam factory in the city (getting high revenue from the finished product) rather than at the farm that only sells lower revenue generating strawberries. “... at present, for perhaps four-fifths of the food produced by commercial farmers in the EU, the adding of value takes place largely not in truly rural enterprises, but rather in largescale centralised processing units. This removes the potential for adding value to food in the rural areas” (ARC, 2010:14).</p>
<p>Ecological sustainability explicit “But in social and economic terms, the importance of agriculture has been falling : in many rural areas, it now supports only a small share of the labour force and the local economy. Other sectors - crafts, manufacturing, processing, tourism and other service industries - have grown in importance. The prosperity of rural communities now depends heavily upon a more diversified economy” (Dower, 2013:41). Diversification extends to ecological sustainability and more economic diversity as called for by ARC (2010:6) “3 Our Vision ... a radical review of policies for both agriculture and rural development ... focuses on:</p> <ul style="list-style-type: none"> • A paradigm shift in agriculture and in food systems from the dominant unsustainable, resource-intensive, industrial-style farming and centralised food industry, ... to sustainable farming everywhere and a diversified pattern of regional and local production and processing of food,... and high care for public health, environment and animal welfare. • An economic, social and environmental renaissance of rural areas, building upon the strength and diversity of communities, cultures and resources, linked effectively to place-based territorial development”. 	<p>Environmental concerns are externalized and a minor part of the agriculture-for-resources perspective. “Until the 1980s, the EU had two main streams of policy related to rural areas - the CAP and the Structural Funds. The CAP provided support to farmers, assuming that agriculture was the main sector in the rural economy, and that the prosperity of farmers would sustain the whole rural community. The Structural Funds were focused mainly on investment in cities, industries and infrastructure, assuming that rural areas would benefit from such investment through a process of “trickle-down” or “diffusion.” By the early 1980s, it was realised that these assumptions were wrong” (Dower, 2013:40).</p>
<p>Cultural heritage cherished. This may be in its own right as something for the people themselves, with a growing understanding of local identity and pride, or valorized in connection with ecological sustainability</p>	<p>Traditions seen in need of modernization if considered. Cultural heritage’s long-term recognition in the EU is evidenced. That there is poorly developed policy is found, e.g., “Cultural heritage needs far-sighted,</p>

New Paradigm "Rural Development"	Old Paradigm "Regional Development"
<p>and tourism, e.g., the Heritage Trail Dolenjska and Bela Krajina", Slovenia which "started in the early 1990s with the start of the integrated programme for rural development and village renovation and the national programme for the promotion of culture and tradition of rural wine-producing areas ... The Regional Chamber of Commerce together with external consultants carried out an inventory of the potentially valuable touristic assets of the area. About 150 proposals were submitted by various stakeholders, of which 28 were finally selected to constitute the Trail. The idea was to develop a tourist product that could attract tourists to the area for up to seven days. Work on the trail contributed to the creation of a regional partnership involving 32 partners from the public, private and non-government sectors, who signed a cooperation agreement to implement the Heritage Trail. At a later stage this partnership became a Local Action Group in the LEADER programme" (Budzich-Szukała, 2013:136-7). "The distinct culture of each area can enrich local life; can attract visitors from elsewhere, thus strengthening the local economy through tourism; and, crucially, can be expressed in a strong sense of cultural identity and pride, which is the most crucial ingredient in the ability of a community to take initiative in its own local development" (Dower, 2013:38).</p>	<p>integrated policies European cultural heritage is threatened from ... some negative effects of urbanisation and uncontrolled economic activities and globalisation of lifestyles. ... Legal and professional arrangements are needed to preserve respect for, and the memory of, all nationalities, language and religious groups, that together make up the unique cultural heritage of Europe. Local, regional and national efforts are needed to increase awareness of territorially diverse cultural values, strengthen local and regional identities and promote the responsibility of communities towards their cultural and natural heritage." (Damsgaard et al., 2011:48). A subtext is shown when juxtaposed with "Globalisation is an important opportunity that can help boost growth and employment in Europe. The success of the EU 2020 strategy will depend not only on integration between Europe's regions but also on their integration with neighbours, and even with worldwide relationships." (16) and "Globalisation stimulates European culture. It facilitates diffusion of new ideas, lifestyles, exchanges and dialogues on norms and values." (17) (challenges and downsides of globalization are recognized in the text, though the document is weak in differentiating kinds of globalization (Petz, 2013) and by implication the old paradigm (within the document) is unclear about resolving the tensions around cultural heritage policy.</p>
<p>Ecology of local currencies, e.g., Transition Town Pounds; local loyalty card schemes.</p>	<p>Regiogeld - regional currencies / central bank money.</p>

When reading Dower's handiwork, the New Paradigm of Rural Development¹⁶⁹, there is some utopian dreaming present. He wrote (2013:30) of "a European Union... which aims to be fully sustainable" and believes rural development is "to contribute to growth and prosperity within Europe and to achieve territorial cohesion" (30). His hope was wishful thinking in that rural development "must

¹⁶⁹ While Dower intimated that change could happen quickly from the old to the New Paradigm; Kuhn, Darwin, and Planck (Kuhn, 2012) suggest people do not change rapidly. However, climate change means change has to be quick, or extinction and civilization collapse are likely.

be effectively linked, on equal terms, with regional and urban development” (30) to achieve the “EU2020 goal of smart, inclusive and sustainable growth” (30).

He called for policy change: “European policy must indeed move into a new paradigm, driven by the ambition to be fully sustainable. ... Growth and development must indeed be smart and inclusive, but in order to be sustainable... a drive toward sustainability will in itself contribute toward smart and inclusive growth” (31), which others (ECOVAST, ARC, along with other rural organizations representing millions) support.

Merely accepting the New Paradigm is not enough. Even with calls for a “wider rural policy” (48) consideration, as exemplified by “the government in Finland (drawing) ... a crucial distinction between “narrow” rural development (namely the action that is co-funded by the EAFRD) and “broad” rural development, which embraces all those areas of public policy which – for good or ill – may affect the well-being of rural areas” (48). ... *and its policy programme to do this “2009–2013, entitled “Countryside for Vigorous Finland” (48) there is an “increasingly urbanized Europe” (32), and Finland; both thinking differently.*

The paper is prescient in highlighting that “the continuation of poverty and deprivation in rural areas will provoke continued migration into cities” (33), which has often happened in the decade since it was written. Dower maintained there is counter-urbanization (Franz Nahrada personal communication 3.5.2022). However, as a broad trend, moving to the countryside en masse seems unrealistically optimistic. The demographic shifts the countryside is undergoing in most of the world appear to be the opposite. A Cassandra call for counter-urbanization is good, but is it realistically going to take place? Is it predicated on the cultural evolution we built scaffolding for, and continue to build with urban-focused institutional arrangements? Surely, we need to build an alternative?

A rural stimulus policy gap was recognized with a call that the “new programme period must include an effective package of measures – beyond those proposed in the draft Regulation for the future EAFRD [European agricultural fund for rural development] – to ensure that these communities do not enter deep cycles of social decline and land abandonment” (35). The lament that “Many current programmes of rural and regional development appear to be ill-suited to addressing the needs of the rural poor and vulnerable, despite the promise in the Lisbon Strategy of a ‘decisive impact on the eradication of poverty’” (36). All these programmes were predicated on keeping the cities in a rural-urban (R-U) relationship. We must look elsewhere for an alternative.

As the New Paradigm is a way to reset the whole institutional environment, it is not so amenable to direct policy analysis. However, behind the framing is the desire to change the dynamic of society. The move from a dependent rurality to one based on autarky does lend itself to a meta-analysis¹⁷⁰ (Glass, 2015; Hunt,

¹⁷⁰ Meta-analysis has two big advantages that make it appropriate. 1. “the idea that meta-analyses must deal with all studies – with good, or bad, and indifferent studies – and that their results are only properly understood in the context of each other, not after having been censored by some a priori set of prejudices,” (Glass, 2015:229) is particularly relevant to the wicked problem that the area of exploration around rural demands. 2. The crisis of

1997). Here, a broad area of exploration could look at the likely policy proposals and see if they deliver in creating forward-resilience.

Such a meta-policy analysis should seek answers to grand questions. These might be: What makes a viable village? How can we enact counter-urbanization? Why don't young people stay in the villages where they grow up? How can rural livelihoods be enhanced?

Another approach would be to undertake a comparative analysis of each of the separate items found in Table 4. I paired them, e.g., Cultural heritage cherished is paired with Traditions need updating. Another is Regiogeld, compared with an Ecology of local currencies. These could then be contrasted in pilots, as action research with analyses of their manifested effects.

This is a nice, appealing theory. It breaks down when we consider that a complex social system producing emergent properties or acting in a virtuous circle is not simple to execute. Even a package of measures might need some care. It is possible we could use scenario modeling and carry out investigations in such a way (cf. Petz et al., 2023). We could carry out policy analysis in advance, as simulacrum case study research prompts. We could research operationalization or theoretical development. We can carry out analysis of policy implementation and policy instruments before, during, and after use (Acciai & Capano, 2021), showing a range of approaches can complement each other. But is it useful without an overall vision to make use of the results?

To some extent, all this has happened. However, as there are still major issues in the countryside, rural reality demonstrates that depth and application are missing—i.e., showing just how useful it has been. There is a call to meet a more participatory change as part of the rural visioning (EC, 2021) which is taking place as part of building a forward-resilient great transition. As of writing, it is not possible to say if the vision's outcomes will be different from all the other attempts to change the rural dynamic from a forlorn hope to an agrarian renaissance.

replication is particularly relevant when trying to carry out policy analysis. One way to deal with the issue is to think of trust and transferability in terms of qualitative research rather than direct replication as in more quantitative studies. (Tuval-Mashiach, 2021; Pratt et al., 2020). The issue of generalizability is raised over much qualitative social science research. Policymakers demand quantitative data so they can generalize; e.g., the MacNamara Fallacy (O'Mahony, 2017) shows where this demand goes wrong. Thus, they want to generalize qualitative data too or ignore it. For policy analyses to be useful to policymakers, who want data to be so treated (even if it is qualitative and thus incommensurable with generalization), meta-analysis is an answer. This integral approach can synthesize narrative and statistical data.



ORIGINAL ARTICLES

I

SYSMÄ COMMUNITY CURRENCY: AN ANALYSIS OF ITS SUCCESS FROM THE PERSPECTIVES OF PURPOSES, STAKEHOLDERS AND PROMOTION

by

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SYSMÄ COMMUNITY CURRENCY: AN ANALYSIS OF ITS SUCCESS FROM THE PERSPECTIVES OF PURPOSES, STAKEHOLDERS AND PROMOTION

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Abstract: The article is a case study of a local currency, recently introduced in the rurally situated municipality of Sysmä, Finland. As a small community suffering a gradual population decline since the 1960s, Sysmä municipality has begun to innovate with several projects this millennium. Here, we analyse as a narrative and from the viewpoint of experienced tensions, the introductory phase of one of these projects, which strictly is a hyper-local currency acting as a system of account. It is noted that there are unclarities regarding the purpose of the scheme, and that different stakeholders and other observers do have varying ideas about this purpose. Political decisions over limiting rights of issuance of the local currency to locally registered businesses; and its exclusive use for local association subsidies have created some challenges to the acceptance of the currency. Further, the currency has limited uptake due to technical issues, injudicious use of the marketing mix and difficulties with innovating in a rural area. Noting these issues and the peculiarity of the scheme amidst other typical European local currency schemes, the article also points out benefits of the scheme and potential future developments.

Keywords: Rural resilience, area effects, demographic challenge, green economics

Abstrakti: Artikkelin on tapaustutkimus paikallisrahajärjestelmästä, jota kokeiltiin äskettäin maalaisympäristössä Sysmän kunnassa. Paikallisraha on yksi innovaatiivisista aloitteista, joita kunta on tehnyt tällä vuosituhanella torjuakseen jo 1960-luvulta alkaen käynnissä ollutta väestökatoa. Tässä artikkelissa tutkitaan paikallisrahan käynnistysvaihetta siihen sisältyneiden ristiriitojen näkökulmasta. Artikkelissa todetaan, että järjestelmä kärsi epäselvästä tavoitteenasettelusta, ja että eri osallisilla oli tavoitteesta vaihtelevia ja ristiriitaisia käsityksiä. Paikallisrahan sosiaalista hyväksyntää heikensivät päätös rajoittaa rahaa vastaanottavien yritysten joukko kunnassa kirjoilla oleviin yrityksiin, sekä paikallisten yhdistysten tukien maksaminen vain paikallisrahassa. Lisäksi paikallisrahan käytön omaksumista rajoittivat tekniset haasteet, harkitsematon tiedotusstrategia sekä maaseutualueella innovoinnin yleiset haasteet. Artikkelissa eritellään myös Sysmän paikallisrahan erityispiirteitä kansainvälisessä vertailussa sekä järjestelmän onnistumisia ja tulevaisuuden kehitysmahdollisuuksia.

Avainsanat: Maaseudun resilienssin, alueelliset vaikutukset, väestön ikääntymishaaste, ekologinen talous

Sammanfattning: Artikelnen utgör en fallstudie av en lokalvaluta som introducerades nyligen i den finska landsbygdskommunen Sysmä. En liten kommun vars befolkning minskat gradvis ändå sen 1960-talet, Sysmä har börjat testa innovationer i ett antal projekt sedan millennieskiftet. I artikelnen analyserar vi inledningsfasen av ett av dessa projekt, som gäller ett försök med en egen lokalvaluta inom ett mycket begränsat geografiskt område. Analysen är i narrativ form och tar utgångspunkt i upplevda spänningar. Vissa ottydigheter konstateras vad gäller syftet med projektet, där olika intressentgrupper och andra observatörer verkar ha olika uppfattningar. Politiska diskussioner har t ex gällt att begränsa valutaskapande aktiviteter till företag registrerade i kommunen resp att använda valutan uteslutande som stöd för det lokala civila samhället; sådana offentliga diskussioner har ställt hinder i vägen för en bred acceptans. Valutan har dessutom anammats endast i begränsad omfattning som följd av en rad olika faktorer, som tekniska svårigheter, ogenomtänkta torgföringsstrategier samt allmänna svårigheter vad gäller innovationer på landet. Initiativet skiljer sig även från andra europeiska projekt för skapandet av lokalvalutor. Dock pekar artikelnen på ett antal fördelar med systemet samt på tänkbara framtida utvecklingsmöjligheter.

Nyckelord: Landsbygdsresiliens, markanvändning, demografisk utmaning, grön ekonomi

418/474

Zusammenfassung: Der Artikel ist eine Fallstudie einer Lokalwährung, die kürzlich in der ländlich gelegenen Gemeinde Sysmä in Finnland eingeführt wurde. Als kleine Gemeinde, die seit den 1960er Jahren unter einem allmählichen Bevölkerungsrückgang leidet, hat die Gemeinde Sysmä seit der Jahrtausendwende mehrere innovative Projekte begonnen. Hier erzählen wir unter dem Gesichtspunkt erlebter Spannungen die Einführungsphase eines dieser Projekte, bei dem es sich streng genommen um eine hyperlokale Währung handelt, die als Abrechnungssystem fungiert. Es wird angemerkt, dass es Unklarheiten hinsichtlich des Zwecks der Währungsordnung gibt und dass verschiedene Stakeholders und andere Beobachter unterschiedliche Vorstellungen von diesem Zweck haben. Politische Entscheidungen über die Beschränkung der Ausgabe der lokalen Währung an lokal registrierte Unternehmen und sowie ihre ausschließliche Verwendung für lokale Vereinzuschüsse haben die Akzeptanz der Währung vor einige Herausforderungen gestellt. Darüber hinaus hat sich die Währung aufgrund technischer Probleme, unsachgemäßer Verwendung des Marketing-Mix und Schwierigkeiten bei der Innovation in einem ländlichen Gebiet nur begrenzt durchgesetzt. In Anbetracht dieser Probleme und der Außergewöhnlichkeit inmitten anderer typischer europäischer Lokalwährungsordnungen werden in dem Artikel auch die Vorteile des Systems und mögliche künftige Entwicklungen hervorgehoben.

Schlüsselwörter: Resilienz des ländlichen Raums, Flächeneffekte, demografische Herausforderung, Ökologische Ökonomik

1. Introduction

As various remedies to the current problems of spatial concentration of wealth are sought, some rural locations are turning to innovative solutions. Such innovations aim at creating new kinds of mechanisms; both to foster economic activity in the geographical periphery, and to strengthen local identities and attachment to the area. Amongst such innovations, community currencies (CCs) might be emerging as an interesting category. As new kinds of economic tools, they create a structural incentive to consume locally, while also, when well-functioning, increase the velocity of money in the local economy (de La Rosa and Stodder, 2015; Gelleri, 2009). There is a caveat to this, the CC on its own does not do this, it depends on how the particular scheme is run. Therefore, factors such as demurrage, microloans or the presence of cash can all stimulate spending (de La Rosa and Stodder, 2015). In addition to these positive economic outcomes, they aim at re-enforcing local identities. Mostly, such systems have existed in urban areas, yet there are good reasons why community currencies can be a component in rural economic regeneration.

In this article, we analyse a recent experience with a community currency in a rural setting, which took place in Sysmä, Finland. The case is noteworthy in many respects, one of which is its status as the first community currency of its kind in Finland. The success of the initiative was mixed, and here we elucidate its relative merits and shortcomings. It is important to record the introduction of a community currency and to report what is found in early phases rather than only to report those projects which have been successful. We thus, undertook an empirical investigation, as this was now interesting, rather than one based more on hypothesis testing (de Groot, 2014).

Our analysis locates the scheme amongst community currencies, shows tensions related to the scheme, and the various perspectives of different stakeholders. We first give the general context, then explicate the data and methods, and then move to the analysis.

2. Background to Community Currencies and Rural Studies

Typically, politics and innovation within the economy have traditionally been approached as questions regarding production and exchange.

In this context, money is seen as merely a technical issue or a more convenient alternative to barter (Samuelson, 1997). Yet today, we see an increasing awareness of the role of monetary

institutions in shaping material, social and even cultural relations, making way to a host of monetary innovations, including community currencies. The purpose of community currencies is to reclaim control over (parts of) the economy by a currency accepted only within a given community, and to create economic stimulus at the local level. The communities in which a community currency is embedded, can either be: geographical communities; of people delimited in space and time, or communities of interest; the members of which share features in common (Obst and others, 2002).

Complementary currencies are then economic stimuli implementing the policy mix (Eliadis and others, 2005), but at the local (or on a targeted population if it is a community of interest) rather than national or even regional level. As such, they do not conform to the usually found regional development nor structural national economic policies as to the paradigm they are operating under, but rather a “new paradigm” (Dower, 2013).

Nevertheless, despite emerging innovations around money, government institutions still largely dominate the discourse around money and economics. This is reflected in community currencies often being called complementary currencies (Fare and Ahmed, 2017). They are considered complementary to a national or official or fiat currency, backed up by state institutions, practically seen as synonymous to “money”, despite the short history of national currencies (Cohen, 1998).

As there is a large variety of community currencies of different kinds (Nishibe, 2018; Lietaer, 2001), estimated at over 4000 recent examples (Lietaer and Dunne, 2013), they can be typologised, at least to some extent (Martignoni, 2012). While some scholars note that generally, “attempts to build typologies and to name things properly have always been disappointing” (Blanc, 2011, 4), typologies can be helpful in locating individual community currency schemes within the field. Possible conceptual tools for doing this classification we propose would be generational, geographical, and purposeful.

Rather than trying to classify currencies to this or that category, what is more useful is to describe the facets of a currency and the community of users. That is to look at the usufruct of the currency which considers the property rights inherent in money (Fox, 2008).

Research on community currencies is part of a wider endeavour to look at how resilience can be strengthened in rural communities (Christopherson and others, 2010; Cumming and others 2005; Fieldsend 2013). The assessment of the relevance of community currencies to rural areas in Finland depends on how the existing monetary institutions (particularly the euro) are seen from the viewpoint of allowing different policies³. In any case, the functioning of the contemporary market economy with related spatial concentration tendencies often results in rural areas becoming perceived (Stingl, 2015), and then made peripheral to the market centres (Weber, 1978), which are commonly in urban areas (van Meeteren and Poorthuis, 2018). Thus, such rural areas have a relatively low relational capital and lower access to financial capital (Hornborg, 2009). Community currencies which are geographically based in rural communities then seek to stimulate local wealth and strengthen local supply chains by increasing the velocity of money in the local economy. The pressing need for rural finance, and its lack, is a driver for such alternatives. The rural context of this community currency was a motivating factor in researching it.

Rural currencies have been successful in the past, notably as Local Exchange Transfer Schemes (LETS) schemes (Aldridge and others, 2003). These schemes evolved from employment inclusion programmes and typically combine services and products such as rooms for rent, food or other locally produced goods (Kennedy and others, 2012). Other rural currencies have made use of time-banking (Eskelinen, 2018) or mutual credit clearing (Greco, 2012). The Lewes Pound (UK) (The Lewes Pound, 2018) and the Waldviertler (Austria) (Waldviertler – Verein für regionales Wirtschaften 2016) are examples of recent viable rural local currencies.

³ The euro system as implemented has had major impacts on European regional and country levels (Varoufakis 2016), yet there are effects too between core and peripheral areas within countries (Dower 2013).

3. Context to Finland and Sysmä

Finland follows the general demographic trends (Heikkilä, 2003), as it continues to suffer a mass rural to urban migration (Champion and Hugo, 2003) and sees wealth steadily draining from rural areas to Helsinki (Grunfelder, 2018; Saarinen, 2011). To counter this trend, many rural development initiatives have been introduced⁴, along with government spatial policy. A good case study of this synergy can be made of the 2013 “Local Food – But of Course!” (Maa- ja metsätalousministeriö, 2013) government programme that has been introduced in awareness of the institutional environment created by the European Union and government administration as set out in the 2009 Act on Regional Development (MLIT, 2017) and updated in 2014 (Manelius, 2016). These initiatives range from ones mostly designed to generate visibility for a rural municipality to serious economic regeneration initiatives. The introduction, of the country’s first rural local currency, in Sysmä takes place in this context.

Sysmä is found within the Päijät-Häme Region of Finland. The main population cluster in the Sysmä municipality is called Sysmä and is considered a village by the residents, though the municipality contains some sparsely populated rural areas and is smaller than the historic Sysmä area or even the area of Sysmä economic influence. Much of the region has suffered gradual rural population decline since the 1960s (Hahl and others, 2014). Sysmä municipality’s population was 9 282 in 1960 (MMM, 1964), and 3 820 as of July 2018 (OSF, 2018). As Sysmä municipality depends on local taxes, population decline has provided some difficulties with funding services to the level they historically have enjoyed.

More recently, the area effects in the Päijät-Häme Region, which Sysmä is a part of, have manifested reduced house prices and a dearth of young adults, who are needed to make the community function effectively. There is a forestry and farming community, although the nature of its income generating characteristics has shifted in emphasis with a greater amount derived from tourism, service provision (such as camping, boating, and events like the Suvisoitto music festival), and not from production of agricultural products (which includes timber or unprocessed food crops (European Union, 2004)). It can thus be described as post-productivist agriculture and replicates a trend seen in other Northern European countries such as the UK (Almstedt, 2013; Libery and Kneafsey, 1998).

Yet, the local culture has a resilience to external shocks which includes an impetus for innovations. Sysmä has seen drastic changes in the past and had to, and did change the customary agricultural production on account of the world commodity prices and demand (Vanhanen, 2015) in the 19th century and the mid-20th century with respect to arable and dairy crops. In this millennium, Sysmä municipality has begun to innovate with several projects to counter demographic and economic decline. These include e-residency (Tuomikoski, 2018), membership of the International Organisation of Book Towns with the Sysmän Kirjakyöpäivät (Book-village Days) literary festival, (Seaton, 1999) and a trial of a community currency (Talasterä and Sources, 2017), which this case study is about. A partial recognition of this situation led initially to an arts and cultural revival called Yksi Sysmä (the one and only Sysmä) over the last decade. It has been described as a “declaration of independence”. The spirit of innovation is emphasised by the Sysmä money project website, which proclaimed “Sysmä is historically known for its creative craziness”. The official name of the Sysmä money project was Sysmän kuponkieuro ja pienyrittäjien verkosto (Sysmä euro-voucher and small entrepreneur network) (PHL, 2017). Local people tend to describe the area positively, particularly in comparison to nearby Hartola and Padasjoki.

⁴ www.maaseutu.fi/en/the-rural-network/rural-development-program/ and mmm.fi/en/project-and-legislation and ec.europa.eu/agriculture/sites/agriculture/files/rural-development-2014-2020/country-files/fi/factsheet-mainland_en.pdf details many of those projects and their aims.

A significant exogenous factor for Sysmä is the population that is not permanently resident within the municipality. A useful aim is thus to identify and describe this “Sysmä diaspora”⁵, and the alternative home-owner sub-population within it, which may have a more significant economic relationship with Sysmä. The economic inputs from the diaspora need to be clarified, both in amount, frequency and amplitude. Into this social system, the introduction of a community currency may lead to economic and perceptual effects from the Sysmä currency on the diaspora, and particularly on the alternative home-owner sub-culture.

Attempts have been made to work with other local municipalities on a regional scale. They have not been very successful in working with Hartola, the nearest municipality, with the feeling that Hartola has “lost hope”. However, several of the nearby municipalities have formed a partnership to maximise tourist promotion and this is happening under different names. “Gateway to Finnish Lake District” [sic] (Lahti Region Ltd., 2017) is one tagline used as part of an alternative branding aimed at tourists for this “Lahti Region”. There is a love-hate relationship with the nearest city of Lahti, which as the largest urban area in the region both attracts customers from outside the city; and simultaneously leads to impoverishment of the regional economy, thus deprived of custom.

The definitions of who is partnered with are in a state of flux. This shifting sands institutional environment (e.g., the recently attempted country-wide social and health service reform SOTE⁶ (Vauramo, 2018)) makes planning initiatives difficult, and means competition rather than cooperation may result between municipalities and even within municipalities. Similarly, areas of responsibility may be neglected as they do not fall within one person’s, division’s or even municipality’s remit.

4. Research aims, data and methods

This article is a case study of the trial phase of the sysmä local currency (called “sysmä”, with a lower case “s”). The article has two general aims. First, to analyse the prospects of sysmä in terms of its potential as a radical parallel currency (Brunnhuber, 2015) partially done by evaluating its implementation. Second, to analyse the relation of different stakeholders to the community currency initiative in the sense of experienced ownership of the scheme and expressed attitudes towards it.

Radical parallel currency means not only to accelerate the circulation velocity of money locally, but also to facilitate counter-urbanisation (Cloeke, 1985). What potential does such a complementary currency have in mitigating the area effects which a rural area suffers from? This would mean finding a stimulus to transition and localisation, and identifying another dynamic that is a viable alternative to rural decline and village death (Cartwright, 2013; Kotilainen and others, 2015; Pattison, 2004).

When conducting the research, the identification of stakeholder groups was instrumental in analysing, how different groups in Sysmä related to the community currency initiative. Stakeholder analysis is typically carried out in organisation theory, sometimes defining stakeholders as “any group or individual who can affect or is affected by the achievement of the organization’s objectives” (Friedman and Miles, 2006, 1), or even as “those groups without whose support the organization would cease to exist” (Freeman, 2010, 31). The object of analysis can then be extended from organisations to transformative initiatives, as is often done when

⁵ In diaspora studies, diaspora is a term that has widened in meaning, in application, yet those connected with Sysmä exhibit aspects which conform to the definitions of an internal or settlement diaspora. Namely: 1. Dispersion – from the Sysmä area; 2. Homeland orientation – with frequent interactions; and 3. Boundary-Maintenance, which can be assessed by “to what extent and in what forms boundaries are maintained by second, third and subsequent generations” (Brubaker 2005, 7). The last criterion is incipient, and time will reveal if there really is a meaningful Sysmä diaspora or just recent emigrants. Describing this diaspora is complicated by a lack of clarity as to what proportion have a historical connection with Sysmä, the wider region or even no recent connection, but are wealthy Helsinki-ians with alternative homes in the area. The latter may of course adopt a Sysmä identity, which raises another question around diaspora as a “category of practice” or a “constructed identity” which may not conform to the “classical diaspora paradigm”, see (Toninato, 2009) for a discussion around this.

⁶ SOTE stands for Maakunta ja sosiaali- ja tervyspalvelut uudistus, which is the county and social- and health service renewal. Within this is not just service renewal, but also a reorganisation of municipal boundaries and thus, possible political bias creeping in.

analysing “stakeholder-motivated participation”, typical for example, in nature conservation and global sustainability initiatives (Hemmatti, 2002). This starting point was used to analyse, how participation or “sense of ownership” (Hemmatti, 2002, 90) varies between different user groups of the scheme.

The material collected for the research comprises various data subsets. Firstly, the principal investigator acquired general knowledge of the project by contacting the key actors and visiting Sysmä prior to the introduction of the currency. He was able to interview the project manager and the head of the municipality. Another encounter with this project manager occurred during the Finnish Social Forum 2018. Further contact was attempted with the technical provider (Arantio Oy), and the main funder (Päijät-Hämeen Liitto) provided official documentation of the project.

Secondly, the currency introduction phase was observed with the investigator physically staying in Sysmä in July 2018, using deep hanging out (Geertz, 2000) as a co-performative witness. This differs from the similar participant observation by the expression of solidarity via the community development research (Hennink, 2013) actively sharing in the processes going on with those studied so that a “witnessing” (Madison, 2010, 24) from within a community’s culture is possible (Hennink, 2013; Madison, 2010). It derives from an Artistic Research Method from performance art (Petz, 2017). A daily journal was kept while in Sysmä. Images were taken using a mobile phone of relevant literature and usage of the currency and local marketing aspects of the currency and the community. The municipal archives were also consulted. The aim here was thick description (Ponterotto, 2006) of all the cultural features, which might impact on the economic ecology of money usage, which could have a bearing on the Sysmä money. After the field trip, a project evaluation meeting was also attended by two of the research team where some preliminary findings and expert opinion were presented.

Thirdly, during the observation period, around twenty informal discussions and semi-structured interviews were done with Sysmä residents. These were done in English and Finnish, with a generally high level of English knowledge in the community, allowing effective communication. The collected voice-recorded data was transcribed using online transcription software. These rough transcripts were then later corrected due to mis-transcriptions. Identification of the key individuals or firebrands (Eckerberg and Forsberg, 1998) was performed, and several names and roles were identified for key individuals in the process of this project introduction. Snowball sampling (Goodman, 1961) was done, based on opportunity sampling from those that were listed online as participating businesses and those found to be members of participatory economy websites, who self-registered as living in Sysmä. Random sampling of those found at key locations in Sysmä i.e., the municipal office building, which in Sysmä’s case also contains the library, the village market square, at a church free community meal, supermarkets and other local businesses, was carried out when in Sysmä. An ethnographic approach was taken due to the nature and situation of this complex social system. While many social systems are complex, in this case, the subject of study touched critical design challenges, which suggested an ethnographic procedure, would be apposite (Spotless, 2017; Fare and Ahmed, 2017). Lastly, some people in Sysmä have looked over it to see that their culture is appropriately contextualised.

Fourthly, various kinds of media data were collected. This includes collecting all articles from the local newspaper Sysmän Lähilehti which were written during the planning phase of the currency. These articles (n = 7) include reportings about planning meetings and on how the project proceeds, as well as one critical letter to the editor. In addition to the newspaper articles, data was collected by a webscrape of the Facebook Group Puskaradio Sysmä (bush-telegraph / grapevine Sysmä), where community issues are discussed, as well as the sysmä money project website.

Quantitative data could not be used. Low usage of the sysmä in the introduction phase (summer 2018) made gathering useful econometric data impossible, although electronic transaction data was made available to the research team if they should require it. Regrettably, no baseline survey was done of either the business or local consumer communities prior to the introduction of the currency.

The stakeholders were categorised into three groups: local consumers (those resident or working in Sysmä), local traders (those using the Sysmä in their businesses) and tourists (non-resident

holiday makers). Yet, it was found that the alternative home-owners made this simplistic segmentation sub-optimal. Sysmä had been approached with a market research segmentation, based on the concept of a place as a brand (Zenker and Braun, 2010), thus perceiving the sysmä as a marketing innovation. As the unit of analysis was the Sysmä rural community, not only individuals as rational actors (Grüne-Yanoff, 2012) were considered, but also the identification of and import of potentially significant organisations or groupings as actants (Latour, 1996). They were taken into account to try and capture institutional factors (Ostrom, 2007), thus tackling weaknesses in mainstream influenced microeconomic theory (Falk, 2003; Gintis, 2000).

Analyses of data were performed using an interpretivist paradigm rather than a rational one. Data was continuously analysed and supplemented via journal entries, while collecting in the field and then while processing recordings. Recordings were transcribed using Otter Voice Notes (<https://otter.ai/about>). These outputs were then put in LibreOffice Writer (<https://www.libreoffice.org/about-us/who-are-we/>) and translated, where needed to English and corrected as there were transcription errors due to Otter using a corpus of predominantly business and military words and failing to pick up certain speakers' words – particularly those by women. While doing this, more ideas occurred and then the interviews, meeting recordings and journal entries were electronically coded (Basit, 2003) with an open coding type (Taylor and others, 2016, 181–188) using Atlas.ti (<https://atlasti.com/product/what-is-atlas-ti/>).

The analysis was based on content analysis of the various complementary data sets. This meant identifying frequently occurring themes in the data, and developing concepts on this basis (Taylor and others, 2016, 168–175). Then the initial typology was turned into an interpretation proper (Miller and Dingwall, 1997, 204–211). The purpose of the analysis was to synthesise data deriving from the various data sources, including observations, to enable assessment of the initiative. Further, stakeholder positions were identified. The cross-cutting purpose was to analyse the data from the social (acceptance), political (governance) and technical perspective. Care was taken to avoid contextual loss in the processing and analyses of data (Gubrium and others, 2012).

5. Analysis: particularities of the scheme

We now turn to describe the results of the analysis. The format is as follows. Firstly, we describe how the scheme can be analysed in relation to other comparable schemes internationally. Subsequently, we analyse potential tensions and perceptions of different stakeholders. The article finishes with a discussion on the future viability of the scheme, potential for improvement, and general assessment.

In terms of general classifications, the currency may be said to be local money, it is deliberately limited for businesses within Sysmä. Even more limiting, this was done by only allowing those with a business registered within the Sysmä municipality to have issuing rights for sysmä (PHL, 2019, 10). Furthermore, it is hyperlocal as it only accepts Sysmä businesses and not for example, those in geographically close Hartola, which Sysmä shares some things with, such as the Lutheran church parish, a local newspaper, and some governance.

In the context of community currency initiatives, the sysmä has numerous distinct features, making it something of an outlier case amongst other European schemes. These features include, first, a very small population basis. Typically, the population of a geographically defined community currency area is counted in hundreds of thousands, and even rural initiatives are often based on a larger base of potential users. A village like Sysmä is akin to a large employer or a special community such as a hospital or a university. Population demographics could also be significant in the sense in which e.g., the Japanese system of Fureai Kippu (caring relationship ticket) (Hayashi, 2012; Kennedy, 2012) is targeted particularly for the elderly, yet Sysmä has been very clear to avoid the identity of an old people's service. The realities of the rural setting also include the available goods and services to be traded within the scheme, as the main businesses are agricultural, or tourism based. The food and farming sectors traditionally are lower in innovation and lower value. There is some higher value development of a Sysmä breakfast cereal and own label products that make use of terroir in the region e.g. Sahti, a local alcoholic beverage.

Yet the small population is hardly the only noteworthy demographic characteristic of Sysmä. Indeed, the municipality is one of the most holiday-home dense areas in the country relative to

population, and the holiday season sees the population of Sysmä swell. These holiday residents are not strictly speaking Sysmä locals, but nevertheless as alternative home owners spend long periods of time regularly in the region and have something of a semi-resident identity. In addition, given the heavy urban migration from the area, there is a wider Sysmä settlement diaspora mostly living in the Helsinki-region. All in all, the number of people who could be potential community currency users, is considerably larger than the actual population base. Interestingly, there are hardly examples of a community currency established in a comparable demographic setting. Rather, other existing schemes can better classify potential users in the categories of residents and tourists.

Secondly, while the sysmä has been developed through establishing relations with civil society and partially integrated local entrepreneurs organically to the planning process, the fact remains that the evolution of the system was project-driven rather than civil society-driven, again in sharp contrast to comparable schemes. Thus, long-term management of the project is in doubt (PHL, 2019). At some point, the governance aspect must be transferred either to a company, NGO or designated part of the council of Sysmä. Making the currency a regional currency and thus supported logistically and financially is another possibility. As a tourist currency, it would make a lot of sense and lessons from the UK's Lake District Pound could be applied to this region.

It seems that the connections to other community currency schemes and user communities were few and sporadic. Yet some connections were made with the Finnish Social Forum and the Helsinki timebank (Laamanen and others, 2015). Suomen Talousdemokratia ry (Economic Democracy Finland ry), an alternative currency activist minded NGO was involved to some extent to give advice, but their expertise is not rural regeneration, local governance nor economic stimulus. There are certainly other communities in Northern Europe, which could be reached and were known by the project team, however, "When technical problems arose and the time resources of the project diminished, some contacts were abandoned to save time" (PHL, 2019, 13). There appears a low level of economic literacy around heterodox economics in Sysmä and better maintained connections could have helped shape ideas around what the money was to be used for. No university partner appears to have been meaningfully involved (Godenhjelm and Johanson, 2018) so the triple helix model of innovation which blends industry, government and university expertise was not fully benefited from.

The final report claims connections were made with: Aalto University, a recently merged university acting as an innovation fostering university; Arvotakomo, a cooperative called Valuecraft in English that "enriches local culture through alternative local, community and parallel currency experiments. The cooperative supports experiments aimed to improve economic diversity, economic sustainable development and equal economic opportunities," (Arvotakomo, 2019); VTT Oulu, a government owned technical research centre, which supports innovation; and the researchers Paulo Melo, with a sharing economy academic interest at the Faculty of Economics of the University of Coimbra, Portugal (Melo and Jorge, 2015); and Nikolay Kryachkov, who is interested in "the knowledge person" and is connected with the Russian Academy of Sciences, (Kryachkov, 2014) (PHL, 2019, 12), with additionally some who contacted the project, but were not got back to.

Thirdly, sysmä was chosen from the beginning to operate only as virtual currency. Actual coins or pre-printed banknotes were avoided at the design stage. The focus has then been on electronic transactions, which are made by computer or by mobile phone. However, afterthoughts about the mechanisms for actual use meant that your "own design" and your own note could be printed by potential users. These print-offs, which could be made at home or at one of the exchange points could have whatever design was wanted, so long as the Quick Response (QR) code (Walsh, 2009) was present and readable by a hand scanner, which was provided to retailers accepting the sysmä.

This approach seems to have been founded on the thinking of a card rather than cash-based society. This decision raises several questions and obstacles in the implementation of the scheme. This includes unforeseen technical problems, as the original devices retailers had would not scan the QR-codes properly and new devices had to be provided, which also led to the need to train workers to use these devices. Attempts by the principal researcher to use

the printed QR-codes revealed that staff training was inadequate on half the attempts, resulting in lengthy purchase times of about five minutes. Further, the QR-code system, which does not allow either giving change or paying the exact sum from an account, would commonly result in a balance being left after using the sysmä. E.g., a typical exchange made from twenty euro for twenty sysmä upon spending those sysmä to buy goods of only eighteen sysmä would leave a balance of two sysmä. That balance had to be written on the paper note as no change was given in euro. This meant small amounts could hang around in a supposedly paper-free cashless world. This would actually lead to more paper to carry about.

6. Tensions over purposes

Purposively, it is hard to say what exactly the currency is supposed to achieve. Little evidence was found that the design and implementation of the sysmä was made with a co-creative process involving stakeholders and actants, which would build a participative ownership culture. Rather, it was a “they” or “we've [the Sysmä entrepreneurs association] been thinking some kind of cards or something and how to get it ... and then Juri [the project manager] went to the Päijät-Hämeen Liitto and **they decide to make it money** and then Juri came back and to Sysmä and told that we can make our own money”. So a medium level of citizen participation, perhaps informing and cosmetic consultation, which are only tokenism, according to Arnstein's Ladder of Citizen Participation (Arnstein, 1969).

For these people, the currency has no purpose, they are indifferent toward it and do not care to learn how to use it. There does seem to be the impression that the sysmä was introduced because “we have to do something” to counter the rural decline and structural effects of poor national governance.

Rather than a parallel currency, which may counter cyclical boom and bust, the use to counter long term decline is an innovative idea for introduction of a community currency. But the identification of the problem, disaggregation and development of solutions as a strategy for rural regeneration or resilience, which the currency can be clearly linked to seems to be missing. The gap in rural policy is not a matter for this paper, though the currency could fit in with appropriately developed policies or at least facilitate social innovation (Ludvig and others, 2018). Rather than the purpose of the currency, the current focus can be described.

In Sysmä, it can be seen that the idea of mutual help predominates (Paterson, 2010) rather than full economic development or a fully evolved purpose such as rural regeneration (this is hoped for rather than planned for in the currency design), localisation or ecological sustainability are not thought of as the purposes of the sysmä. Nevertheless, individuals in Sysmä were aware that these things were important, and some connected to the project did see that the sysmä “could be so much more” and that they were only scratching the surface.

The currency has acted as a tool for increasing the visibility of the municipality via use of integrated marketing communications (Schultz and others, 1993). Indeed, portraying Sysmä as an interesting place to visit through national media could be seen as the primary function of the local currency scheme. The advocacy for rural development has been weaker, though there is an element of that story in the narratives around the currency. There is a difficulty in such a narrative – by admitting an area needs improvement it gives the perception that the area is troubled and those who are proud of a rural area often do not want to admit there is a problem.

The question about purpose of the scheme is further complicated by the above-mentioned choice not to include any physical currency. Some people wanted a tourist souvenir, but there were no beautiful notes for them to obtain and save nor for them to gift to others such as children – this usage was even promoted and at least one customer was seen trying to get such a note at an exchange point. The electronic use of sysmä as a phone-based transaction might have worked well if people had taken up this possibility. However, there were challenges with this option. Principally, this came down to a lack of trust. Some did not trust this new unfamiliar method with money. There were some technical problems where initial exchanges paid for in euro which after payment from a euro account did not appear in people's electronic accounts as sysmä. There was a lack of understanding how this phone-based use could benefit an individual who already had euro. There were also some religious objections to the idea of numbers and an electronic

society which translated into abstention from using an electronic currency, based on interpretations of Christian teachings (Albrecht and McIntyre, 2006).

7. Stakeholders

In respect to the sysmä currency, there are key players and organisations in which they participate. These actants, with potentially different ideas of the desirability, purpose and design of the currency, include the mayor, project manager, city council, the local association of entrepreneurs (Sysmän Yrittäjät ry), local associations, the regional council, the provider of the technological platform, and finally the residents and other people with regular connections to Sysmä.

The local mayor is in a position of influence and is directive enough in her leadership style that she has supported the currency and successfully advocated for some of the features in its design. The project manager has led the local currency as a project, managing the budget and has experience in local government and an appropriate university qualification. They meet regularly with an advisory body that the mayor has created to discuss initiatives and ideas called the Elinvoimatyöryhmä (Vitality Working Group). This working-group is not directly elected and has no direct electoral power. It includes some council workers, business people and may invite others to give evidence and is consulted by the mayor, who uses its advice to make decisions. The municipal council, even though not de facto independent from the mayor and the project manager, has formally the power over the eligibility criteria of the currency scheme, in other words over who can issue the money.

The local entrepreneurs association members were thought of as the main users and beneficiaries of the community currency. However, they did not decide on this and did not provide any funding. It was presented to them in a 'this is what "we" will do way', rather than co-created with the association as a whole. Yet, the business sector has interacted with the government sector via a committee for innovation / renovation. This committee originally approached the Päijät-Häme regional council for regional funding for the loyalty card. However, a card scheme was felt not to be innovative enough by the time an approach was made to the regional council. The regional council said instead there was funding for creating a local currency. This made the regional council a key player in the scheme as a co-initiator and the body with control to innovation funds. Practically, the form and perceived purpose of the currency were partially shaped by the fact that the funding, which initially enabled the scheme came from regional council innovation funds.

The funding was as follows: AIKO 38,556 euro and Sysmä Municipality 16,524 euro (PHL, 2017). AIKO (Regional innovations and experiments in the regions) gave funding for regional development and operated under a regional development paradigm. It followed the Act on the Financing of Regional Development and Structural Fund Projects (8/2014) (PHL, 2017). Specifically, this project purpose was described, thus "Sysmä municipality will put into circulation euro-vouchers and place the amount of euro in safe store corresponding to the value of euro-vouchers to be issued and to guarantee the value of the voucher. Euro-vouchers will be widely marketed, and efforts made to get as many Sysmän entrepreneurship and associations as possible to accept them into use. Entrepreneurships will be incentivized to pay with euro-vouchers. During the pilot, Sysmä municipality will make small purchases with euro-vouchers. The pilot will create a network for small entrepreneurs to cooperatively submit and plan mutual offers."⁷ (PHL, 2017).

⁷ "Sysmän kunta laskee liikkeelle kuponkieuroja ja sijoittaa liikkeelle laskettavien kuponkieurojen määrää vastaavan määrän euroja turvalliseen sijoituskohteeseen sekä takaa kuponkieuron arvon. Kuponkieuroja markkinoidaan laajasti sekä pyritään saamaan mahdollisimman moni sysmäiläinen yritys ja yhdistys hyväksymään ne käyttöön. Yrityksiä kannustetaan maksamaan kuponkieuroilla. Sysmän kunta tekee pilotin aikana pienhankinnat kuponkieuroina. Pilotissa luodaan verkosto pienyrittäjille yhteisten tarjousten jättämiseen ja suunnittelua varten." NB Finnish uses *etusetili* (bounty note) for voucher, but here the common word of *kuponki* is used, though the meaning is a voucher in English and not a coupon. The nuance being the greater fungibility of vouchers than coupons. Similarly, "sijoituskohteeseen" (set aside) does not specify if this is: ringfenced, and so controlled by the municipality; or if it is in escrow, and thus held by a third party.

There were also some hard targets, which were, increased local businesses of 5 (in effect none were created) and 10 jobs created (in effect none were created) (PHL, 2019, 20).

Once it was agreed to have the currency, a promotion budget was agreed and technical services for supporting the currency were to be provided by Arantio Oy (Oy translates as Ltd, limited company). Arantio has an expertise in gym and luncheon voucher systems for business customers. It is not physically located in Sysmä. However, the scheme is technically dependent on the company, which makes the company a stakeholder in the scheme. Further, technical support and operating the main exchange point has been provided by a worker who is an IT repair specialist, practically as a volunteer input. In the long term, it is not clear who will adopt this role.

There has been little consultation of the Sysmä society, with an apparently paternalistic rather than participative method of governance. Despite aims to engage the locals, not many did, for instance, claim their five free sysmä, which were available for all residents as “helicopter money”. This idea is commonly found with the marketing of crypto currencies and is called an “airdrop” (Alassouli, 2018). The diaspora has been only a little bit involved in the community management through an association called the Sysmän neuvottelukunta (Sysmä rural community council)⁸, which meets twice a year and has a University of Cambridge professor amongst its active, invite only membership.

This is now changing and the diaspora might be the future to look at. As there are four times the population with alternative homes in Sysmä than permanent residents, then targeting the alternative homeowner population as a market segment makes some sense. This is now happening with a planned for e-residency initiative, which seems influenced by a similar scheme in Estonia (Roots and Dumbrava, 2016). Such an initiative could act well in identity forming of alternative homeowners to regard themselves as a Sysmä diaspora, much in the way that long-term residents gradually adopt their place of destination rather than place of origin as their place-based identity through social construction (Sampson and Goodrich, 2009).

A question related to identifying the stakeholders is the identification of potential beneficiaries. As the municipal council has the power to decide on the criteria, it thus determines which businesses are accepted and benefit from the scheme. Practically, this has led to exclusion of some local businesses and divided the business community. While the hyperlocality of the scheme draws its justification from the very idea of local currency, many clearly local but non-locally registered businesses are left out. An example is the Sysmän Kirjakaupa (Sysmä’s Bookstore) which is a small business that has been very supportive of the connections that have made the Kirjakyläpäivät viable in Sysmä (Seaton, 1999), it supports a local book association’s events and even hosted the main sysmä exchange point in its building. Yet despite the owner wanting to participate, she cannot as the business is not registered in Sysmä, but in another municipality in the region. A different governance structure might have allowed the bookstore to participate. In practice, the project is run in a friendly way and while only given businesses are allowed to cash-in sysmä for euro for a small redemption fee, the main exchange point has changed back individuals’ sysmä for euro as a goodwill gesture, despite regulations.

At the same time, the council decided to issue local community support in sysmä. It has done this in a divisive way, which shows it has power over the local community. The Road Communities (who are responsible for keeping the local roads passable) and local associations have suffered because of the decision to only pay them this year’s grants in sysmä. The decision was made after the financial year had begun and they had already made commitments with suppliers to pay them in euro. Some of the services and goods they need to buy are not available from anyone who will accept sysmä. Many supporters of the idea of sysmä have been unable and unwilling to defend the way this decision was carried out. Ironically, these communities and associations have made up the majority of exchanges as payment transfers from the municipality (PHL, 2019, 10).

⁸ NB the term rural community council has been used for the equivalent body in the UK, though usage is moving away from this due to confusion with elected representational bodies. The term advisory board might be an alternative. Powers and constitutions vary between boards, advisory boards, authorities, councils, administrative councils, committees and working groups. This reveals a tension between “efficiency” and “democracy”, see (Pleschberger 2003, 113) for discussion on this.

The council itself has come across as hypocritical as it has forced local associations to take the *sysmä* while some of its own schemes have not required the *sysmä*, such as a paid work experience scheme for young people working in the municipality and at some local businesses. This can be interpreted as non-transparent governance, yet fundamentally, it reflects the project-driven rather than civil society-driven origin of the scheme. Due to dissatisfaction with the way politics has been recently conducted, a new political party has appeared to try and challenge the way politics is done in *Sysmä*. This new party formation is not attributable to the *Sysmä Money Project*, although it contains within it some of the troublesome political praxis of small groups acting in a quasi-open way. This means that the community currency could easily be seen as a partisan project rather than something the whole community has ownership of and is indicative of aspects of stakeholder inclusion, which can prove crucial in a public service innovation context (Godenhjelm and Johanson, 2018). According to the project application, the stakeholders should have been: *Sysmän Yrittäjät* (*Sysmä* entrepreneurs association), *Sysmän 4H* (*Sysmä* 4H – a rural youth organization), *Sysmäläisiä yrityksiä* (*Sysmä* people who were entrepreneurs), *Sysmäläisiä yhdistyksiä* (*Sysmä* associations), *Vapaa-ajan neuvottelukunta SNK* (*Sysmä* Community Council) and *Kunnan hallintokunnat* (the municipality board) (Simola, 2017). In praxis, key stakeholders were only marginally involved, notably the associations and community council.

8. Marketing, technology and future viability

The funding of the *sysmä* money has been possible due to regional innovation money, and money from the municipal budget (Talasterä and Sources, 2017). However, such money will not be available for future years and so the *Sysmä* municipality (or some other entity) will have to provide some financial support. Long-term, the money invested must break even or at least generate economic benefits to make it worth continuing. There is a question as to if one village can do this, or if it should expand to other communities or even exist as a regional currency. This would work in similar numbers to a currency like the *Brixton Pound* (Hileman, 2014). Nevertheless, return on investment is not simple to calculate as the figures for the technical and logistical sides of the currency are only part of the costs, and some returns might be incommensurable with the investments.

Communication marketing must also be considered. Information about the currency disseminated through national media with articles in the press (PHL, 2019, 9) and attendance at conferences where the currency was discussed (PHL, 2019, 3–4). Yet, the idea was the currency would be used by local businesses. The local population seems poorly engaged, particularly in comparison to the non-local publicity.

The marketing mix, understood as integrated marketing communications (Schultz and others, 1993), was not developed with good points of sale, booklets or other promotional materials within a properly applied marketing plan. Posters and stickers were made, but they were not optimally installed, even by those participating entrepreneurs that took the materials. There was also a lack of related merchandise that people might adopt, for example, cups, T-shirts or phone covers. In contrast, the website was a functioning way to promote the currency with an implication that there was a social media strategy behind it.

The currency (or as the currency is a digital currency, the digital image or printed out papers with QR-codes on them, that can be scanned for payments and theoretically could function as currency which were available at some locations) itself is not pretty and has been described as “ugly” in contrast to the last set of *markka* (Finland’s national pre-euro currency), which was liked as it showed-off Finnish culture and luminaries. Due to technical problems with the *sysmä* back end, the introduction was impeded and thus the initial promotion of the *sysmä* ended up being done too early. There was thus a lot of promotion of the *sysmä* and then people were unable to use it and obtain it. As a result, viral and guerrilla marketing were not possible and instead the business community itself avoided marketing what was described as a “clown shoe operation”.

However, there were good promotional ideas. The local produce company *Rantala* made a slick video showing children using the *sysmä* money which showed how easy it was. A discount was offered for the money, where a five per cent bonus was paid for those exchanging a certain amount of euro for *sysmä*. Lastly, there was a giveaway for all *Sysmä* residents of five *sysmä*

which could be spent with any participating retailer or entrepreneur (n ~ 30) (PHL, 2019, 10). One of the businesses, Camping Sysmä, offered a special promotion as a result of this fiver giveaway.

More broadly when considering the wider aspects of the marketing mix (Schultz and others, 1993), there seemed little obvious conscious thought on how these elements were to be developed. Product was not evaluated well from the consumer perspective, instead it was led by an interpretation of wants of the business community. There was no baseline survey done for either of these stakeholder groups. Price was considered with a low financial cost for uptake by consumers, but the wider costs of adopting and using the sysmä were poorly catered for. Place was considered to some extent with an office, web-presence and materials to promote points of sale made and distributed, though cross-branding and mounting of promotional materials was poorly achieved. Process and people did not seem to have been considered to a great depth and there seemed a reactive ad hoc response to the needs for training rather than a proactive one. People did not seem to have had associated customer service training, nor buy-in to sysmä as a thing they could engage with.

Technology transfer would be a good way of approaching the sysmä money. There have been around 4,000 community currencies in the last century or so, with notable successes in Scandinavia (Conaty and Lewis, 2012). To see how they have worked or how other community-based IT projects have worked allows a comparative study of the sysmä case to be undertaken. With a rural innovation, there are particular challenges that arise, which do not affect urban innovations mostly related to socio-geographical aspects (Lee, 1996; North, 2005). There are challenges with any innovation that a description of what happened does not mean that successes and failures could have been assured or avoided respectfully. Rather, a culture of failure management is a measure of success, which can judge final outcomes after a process, has been completed.

Arantio Oy, the company that was to provide the technical support, devices and software for the sysmä, has not been as responsive in time and fixing as was expected so that it “was unable to provide the information that was promised” (PHL, 2019, 10). Serious technical problems arose that the sysmä system was not functioning at crucial moments (PHL, 2019, 7–8). The project management of the technical side was not done in concert with the promotional side well enough to avoid wasting money on wrongly timed marketing and staff time. There was a mission critical fault when money could not be exchanged back into euro from sysmä, which meant a cash flow problem for businesses could arise. During this time, the project manager at Arantio Oy went on holiday and could not be reached. As there was no back-up mechanism, this was a disaster for the staff trying to promote the sysmä.

Another technical problem with non-scanning meant that devices had to be provided to all the participants that needed them. However, this problem appears it was sorted out in a timely way. While people understand on an intellectual level that problems may arise, the user community of businesses were poorly prepared for potential problems that may arise within the innovation process and lost confidence in the project. Better education could have come from both Arantio Oy and the project team about this possibility.

The use of phones as a way of using the currency was an innovation that it seemed would work well based on the buzz around electronic currencies and moves to a cashless society (Ngugi and others, 2010; Wolman, 2013). However, there was no market analysis and investigation if these were real trends or the media hype which new technology attracts (Levy, 2015). There appeared to be neither baseline study nor market research done on the potential users of the money. The idea that businesses would use the currency was an aspiration that the business community did not hold. As most of the businesses members of Sysmän Yrittäjät ry already had a system of account with each other, the sysmä was not seen as useful to them as a service. The diaspora and ordinary people of Sysmä who it was hoped would use the sysmä were not asked nor trialled with sub-populations. The lack of social science or market research meant investment and development of the phone-side was done, when it appears other aspects were neglected.

9. Discussion

The description above described the launching stage of the *sysmä* currency. Generationally, the currency can indeed be described as in the trial or experimental phase (contrast with a product introduction or a new business). This is noteworthy for two reasons. Firstly, the currency scheme might still develop by learning from past mistakes, as it matures through the trial phase. Secondly, the evaluation of the trial phase shows that as far as the cultural evolution in respect to community currencies is still to take place in the Finnish society, the structures of governance need to adjust in order to accommodate schemes like the *sysmä* with ease. The *sysmä* might be described as a fitting in with the “fourth generation of complementary currency systems” due both to the partnerships with local authorities and others in combination with being electronic money (Fare and Ahmed, 2017b).

In the *sysmä* case, most pressing problems relate to governance and technology. The currency has limited uptake due to technical issues, injudicious application of the marketing mix and difficulties with innovating in a rural area (Dower, 2013; North and Smallbone, 2006). Political decisions over limiting rights of issuance of *sysmä* to locally registered businesses; and its exclusive use for local association subsidies given by the municipality have created some challenges to the acceptance of the *sysmä*. Launching the scheme was carried out as a top-down implementation using a project management methodology.

The decision to rely on QR-codes as currency as a wise one can be contested. The design choices of the currency features for a rural area can be seen as an issue. But a deeper analysis reveals that there are several related aspects to this in terms of convenience and familiarity. Adoption of a digital local currency relies on “previous experience” (Giménez and Tamajón, 2019), which in the case of a new initiative can be regarded in economic terms as continuity over a substitute good for fiat currency (Nechyba, 2016). These QR codes are not a perfect substitute and could be said to be a cross-category substitution. There are examples of such cross-category substitution being launched in the last few years without an intermediary step of paper based local currency notes. Colu, an Israeli firm, has successfully introduced The Liverpool Pound, for example, based on a mobile phone app (Koenig, 2017). The Kintetsu Group has experimented with the Harukas Coin with participants selected from members of its KIPS loyalty card scheme in Japan (Kintetsu, 2018), which operates as a virtual currency.

In the case of the *sysmä*, the argument can be made that the Finnish consumer and business is already familiar with card-based loyalty cards that give points e.g., *Plussa-Kortti* (Kesko, 2016), *S-Etukortti* (S Group 2019). The *K-Plussa* loyalty system has already been offering “digital *Plussa* money” and the possibility to pay with a mobile-phone based app called the *K-Plussa-mobiilikortti* at least since 2017 (Kesko, 2019; K-rhymä, 2017). The market penetration of mobile phones and the *K-Plussa* cards is very high in Finland, with 79% of the population in total and around 50% of pensioners using smart phones in 2017 (SF 2019) and 2.2 million (Kesko, 2016) of the 2.7 million households (OSF 2019) holding *Plussa* cards. It was reasonable to expect there was a large enough potential pool of early adopters for a digital local currency in *Sysmä* without the need for a paper-based currency. In economic terms, there was sufficient elasticity of substitution to meet the continuity taste requirements of users switching to use the *sysmä*, while maintaining their utility with the essential good of a functioning currency.

Greco convincingly argues that local currencies can be divided into two forms; “a ledger of accounts to keep track of exchanges, and local currency systems ... which use circulating paper notes to give people a way of tracking their exchanges” (Greco, 2001, 183). Thus, in the case of the *sysmä*, which is a system of account, it has perhaps more in common with the ledger form. Such ledger forms have no paper notes and have in some cases gone straight to digital. This is increasingly so nigh on 2 decades after Greco was writing, as fourth generation community currencies money (Fare and Ahmed, 2017b) and ubiquitous computing (Greenfield, 2010) have changed the sphere and rules in which community currencies can effectively operate.

An example of straight to digital is *Freecoin* that has been set up by the *Dyne.org* Foundation as a social digital currency set of tools and has some working examples in Italy, Croatia and the Netherlands (Sachy, 2017). The *Cyclos* software provides a backend to support a wide range of community currency and related initiatives (Valek and Bures, 2019), for example, the *Hudson*

Current which started and has only operated digitally (McCarthy and Reidelbach, 2016). Other new digital currency initiatives are often hyped as altcoins or linked with blockchain or holochain – even when in fact they are not. For example, “sysmäCoin” was used to refer to the sysmä, even though it was not an Altcoin.

Though we argue, in design terms that for the sysmä, there was no path dependent lock-in (Liebowitz and Margolis, 1999) necessitating a physical currency first, we do argue that in this case, producing circulating paper notes would have been a prudent move. It would have allowed tourists to exchange hard cash for the notes, built familiarity and acceptance in the local population and been an effective marketing tool. Nevertheless, merely producing the notes would not have assured the success of the sysmä, in addition local economic literacy efforts such as co-creative processes or workshops would have made success more likely as has been found elsewhere (Blanc and Fare, 2012). These would have acted to engage in market education and overcome innovation resistance (Ram and Sheth, 1989).

On the other hand, the scheme has had good press coverage, locally, regionally and nationally and even some internationally (PHL, 2019, 9). Users have benefited from discount incentives and the possibility to pay water bills with the currency. Having the possibility to pay such a widely used utility is a strong factor in building acceptance and thus a successful currency (Greco, 2009).

Low volume of sysmä means the currency has insignificantly transacted. The final report said under 200,000 euro, but our estimate is around 100,000 euro based on the claim of 20,000 tax take from transactions (PHL, 2019, 20). Local businesses are ostensibly the focus, with the idea that they benefit from the sysmä. How they would benefit is not clear. Most of the businesses already have a system of account with other local businesses, so this does not serve them. Some community benefit accrues as those exchanging euro for the sysmä are limited in where they can spend it – so it must be spent in the businesses which are part of the scheme. Most of the individual spends have been in the Suvituuli Supermarket; so good as a subsidy for the owner of that business, and she is inordinately supportive of locally sourced goods, with an aisle deliberately stocked with many local products. So this has the potential to stimulate the local economy. Another beneficiary could be the municipality, ironically due to the administration of the scheme, as the local road communities and associations that get grants for carrying out their work have been paid in sysmä. As it is difficult for them to spend these sysmä, it may be that there is a saving for the municipality. At least one large non-municipality transaction of 15,000 euro took place, and so there must have been a clear business case for that transaction. This has benefited from a five per cent incentive built into the scheme.

Another part of the equation is the community of interest or usage for any community currency and their concomitant social relations (Lee and others, 2004). In this case, the community of potential usage and community of actual usage can be separated into sectors or cohorts. A sectoral approach would consider the second sector or business community, the governance, or first sector and the third sector or community organisations. A cohort approach would consider users such as the residents and workers in Sysmä; alternative home owners; tourists and business people / owners. This approach can look at the burden and the benefits to each cohort or sector. Good governance and thinking about the currency implication and where and how it can be used can ensure users benefit from its introduction. The terms market segment and actant are other labels that can be used rather than cohort or sector with each being associated with different theoretical connotations.

Products and services traditionally go through a life-cycle. This life-cycle is mediated by wider trends in society. However, despite a path dependency shaping how innovations will manifest and be diffused, there needs to be a novel element to them for them to gain a niche-hold within the consumerist culture that dominates most human societies (Heiler, 2008; Libery and Kneafsey, 1998). There also needs to be a driver for innovation. The innovation driver in Sysmä is the rural decline and changing demographics of a rural area. Or rather, the decline spurs some people to react against the changes not to regress to nostalgia, but towards a more creative destruction response of social innovation (Ludvig and others, 2018). That process is an ongoing process and innovations are developing within this matrix.

Recently, this concept of the brand of Sysmä has started to crystallise in people's minds. The idea of Sysmä as an innovative centre that shows the world how to be – a kind of Sysmä pride – ties in with value systems found in Nordic rural communities (Halhead, 2006). This is creating a pull factor and makes Sysmä interesting to people that can now see it not only as a rural dead-end backwater.

With flexible part-time and changing working landscapes, the concept of a job and then retirement is being eroded and the potential to be working and being in different places over time is increasing. As a result, it does not make sense to see living in Sysmä as being a holiday or a second home and being somewhere else as the primary home. A new way of seeing things is to speak of alternative homes. At present, the Finnish legal requirements do allow people to register as being in the country with no fixed municipality, but strongly encourage registration to only one municipality. There is currently a discussion about people being able to register in two places for specific times of the year – a summer and winter registration.

If Sysmä is to follow this path, it may have to accept that the population profile is drastically different and not a place with many lapsiperhe (families with children) and a resultant change in service provision. The idea of Sysmä is also changing. It may become a culture and a place where many people will feel an affinity with who may not be geographically present a lot of the time. As a post-agrarian and now post-industrial community, how does it look in a rural community that is not tied to the land or industry for its identity? Instead, an identity might be centred around cultural icons. A potential cultural icon can be the sysmä money, what it can be used for, along with the effects it has on the community and the wider diaspora.

It is possible to pay the water bill in sysmä, the mayor of the city has talked about receiving a third of her salary in sysmä (the Mayor of Bristol gets all his salary in Bristol pounds) and members of the project team say “there is so much more” that the currency could do and be used for. If that wider internal diaspora is to be reached and created in identity, there are several processes that must be undergone. Identity building comes from a shared culture, this can be through associations, and common experiences. Can the sysmä currency serve the diaspora? The e-government approach is being rolled out for service access. There is an idea to allow health-care services with a large private provider to develop that service provision. The same aspect of paying in sysmä also works if people are persuaded to exchange their euro for sysmä.

Conversion from euro to sysmä can be trivial, as in the case of wanting to buy an ice-cream with sysmä for children to have the excitement of using different money. But a community currency is the beginning of economic literacy. The idea of money or currency or economics can be more broadly thought of when people start to consider, as anthropologists do when they think of exchange, as more than just market exchange (Eriksen, 2001), and that there is a homo reciprocans approach with broader sustainability questions (Lake, 2010) and transitioning society or relations that are part of any transaction beyond the neo-classical synthesis embodied in the homunculus homo economicus. This approach shows that a wider usage of the sysmä by the diaspora is possible.

A community currency for the Sysmä diaspora may lead to holiday cash with an increased local and regional spending; a savings account, which allows Sysmä as a community to invest the generated wealth locally and even to develop other purposes. The community currency could be used for rural regeneration and economic and social inclusion. Sysmä can be used for a Fureai Kippu (Hayashi, 2012) type scheme to support older people, educational or youth money. There is also a potential to grow the economy by producing non-ringfenced money that moves transactions in time for economic security or as a counter cyclical measure.

If there is sufficient market capitalisation, it may be that the money can be used to generate a regional regeneration, or a rural renaissance. Such a process may be utopian and lead to counter-urbanisation with an increasing population and greater services. Counter-urbanisation has been conceived of under an old paradigm of people only living in one location as a primary residence. Counter-urbanisation under a dynamic of digital ubiquity (Greenfield, 2010) and of alternative homes might involve the shifting of resources without the geographical shifting of people at the same scale. There is evidence of this happening when looking at the investments in altcoins that are not physically located anywhere. These desires and ideas are certainly

the hopes of many. They are also seen by some as the answer to the great shift we must make for climate change mitigation and adaptation in this century. They take somewhat of a futurist perspective and there are counter narratives which see the opposite happening with a loss and eventual death of the rural, no matter what is tried.

Examples and elements of the more hopeful narrative can be found as experimental projects around the world. The involvement of diasporas in remittances for developments, both within a country (Skeldon, 1997) and between countries (Gorchakova, 2012), has been well demonstrated (Constant and Zimmermann, 2016). For the area of Sysmä, which is in Finland, which is a rich well-developed country, this has not been shown. There is at present some transfer of wealth from the diaspora to Sysmä using the conventional money system. Property taxes are paid, some services are purchased from local businesses. However, for the sysmä to play a role, there needs to be a better economic mapping to see where the spending is now and where it potentially could be shifted towards the sysmä currency and thence benefit the Sysmä area.

10. Conclusion

Sysmä's experiment has lessons for other communities facing similar societal shifts across the Nordic Region (Grunfelder, 2018). As ever, the implementation of an idea is a key factor in whether it is successful or not. The sysmä has proven that a rural community can be financed sufficiently to set-up and run a hyper-local community currency scheme. However, the reliance on the commercial sector to provide the solutions for development of a disruptive innovation in a rural community is in doubt. The project manager ascribes part of the failure as based on the diffusion theory of innovation (Rogers, 2010), namely not engaging enough early adopters who were "local adopters" (PHL, 2019, 16), yet this lacks an understanding of disruptive innovation. A disruptive innovation by its very experimental idea is a prototype and not well adapted for the market, rather it shows how a product or service could be so adapted (Chatterjee, 2009). From this perspective, lessons from the sysmä might well show a success even if the individual prototype is not the final successful form hoped for.

There was an industry partner, but it was not an enthusiastic champion of the idea throughout the project. Knowledge capital was available in limited amounts, with no benchmarking or twinning with other analogous projects whereby experiential learning for capacity building might have been obtained at low cost. Rural innovations have proven successful in the past by bringing in different expertise, for example, in the triple helix concept with (industry, government and academia) (Haas and others, 2016; Triple Helix Research Group 2013) with a university or even with living labs or other actants as partners in what is labelled the Quadruple Helix (Arnkil and others, 2010; Leydesdorff, 2012).

It appears in this case there is a lack of strategic planning. A strategic plan which would have not merely hoped the currency would be successful, but would have considered how or where it might develop if it was to be successful was lacking. The various capitals that needed to be mobilised to support the sysmä were not coherently planned and contracted for. Financial capital was provided by the regional innovation fund and the municipality, and some resources were provided by the entrepreneurs that participated. Yet, it appears the money was used as seed capital without considering how a financing stream would be maintained after launch (PHL, 2019, 18). An initial plan of half a year is perhaps not the three or four years which would be needed to properly establish the sysmä system.

This community currency is strictly a system of account, and not properly a currency as it does not circulate as a currency should. It faced a challenge in the evolutionary competition of financial systems in occupying a niche, as the local entrepreneurs already had a system of account they were using. If they had lacked such a system, it is possible the sysmä would have been the system they would have adopted as there would have been a business case / use for it. Similarly, while local firebrands may support a currency, there also needs an element of local cultural capital, which is supportive of the currency. In Sysmä's case, this was seriously eroded by an organisational core culture (Schneider, 1994) that was a control and command culture rather than a collaboration culture within which the project and people would have worked together to successfully co-create a working economic system using the sysmä.

A community currency can be introduced to any environment, but the trajectory of cultural evolution must at least be worked with synergistically if it is to stand a chance of establishment in that community. The receptiveness to innovation can vary significantly between superficially similar communities (Rogers, 2010). It remains a moot point as to if there is a vortex of decline in rural communities from the institutional factors acting in a syndemic way, with such momentum that rural renewal via a complementary currency is made impossible by insufficient resilience capacity in the system. Attempting to arrest long-term rural decline and to engage successfully in counter-urbanisation requires a certain capacity in terms of various capitals. It appears that this community currency on its own did not provide enough capacity to accomplish the art of the possible.

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II

WHEN IS MONEY NOT A CURRENCY? DEVELOPMENTS FROM FINLAND OF PROTO-COMMUNITY CURRENCIES

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WHEN IS MONEY NOT A CURRENCY? DEVELOPMENTS FROM FINLAND OF PROTO-COMMUNITY CURRENCIES

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ABSTRACT

The article is a case study of several digitally based schemes recently operating in Finland where some functions and properties of money are evident. While working effectively as designed, they do not fully meet the criteria of a well-functioning community currency. The schemes include: *sysmä*, a digitally based hyperlocal system of account introduced by the rural *Sysmä* municipality; *Pisteeet kotiin@*, a housing association points system in the city of Tampere, copied from a working Dutch model; *BookMooch*, a global book-swapping site that has extended its operations throughout Finland. Explored in the article are the institutional enabling and inhibitory factors and implications for and from other community currency projects. Data was collected by participant observation and semi-structured interviews in all schemes. Additional media surveying, internet webscrapes and online surveying supplemented this data. Along with the demarcation problem between currency and money, the technical issues about scale and purpose, if such schemes are to develop their offerings to become fully fledged currencies, are considered. The concept of “current-see” proposed by the MetaCurrency Project, is used as a lens to evaluate if the schemes achieve their purpose and whether further development is desirable or possible. The concept of a proto-community currency is developed.

KEYWORDS

Green economics, community of use, CC terminology, integral theory, pattern language.

1. INTRODUCTION

1.1 Background to Money v Currency v Exchange

Discussions on money, currency and exchange are often confusing, partly due to the varied usages of these terms by authors with varied backgrounds and partly due to common non-technical usage (Brock and Harris-Braun, 2011:m12:54) which can be sloppy and is prone to semantic change (Robert, 2008). Practitioners may use a term wrongly on purpose: within the information given to the public to be easily understood as a lie-to-children (Stewart and Cohen, 1999), for example in explanations influenced by the barter myth (see below) (Ould-Ahmed, 2010); or for obscuring reasons such as when avoiding the term money to avoid problems with legal and regulatory systems (Bindewald, 2018:p64; Ould-Ahmed, 2010).

Institutions may perceive fiat currency as the only money. For example, the Bank of England, in its somewhat inconsistent Quarterly Bulletin (McLeay et al., 2014:p8), nevertheless explicates under the section “Fiat currency – banknotes and coins”, that “Currency is made up of banknotes” and “banknotes [are] a liability of the Bank of England”, and that “Since 1931, Bank of England money has been fiat money. Fiat or ‘paper’ money is money that is not convertible to any other asset (such as gold or other commodities).” Furthermore, such views can exclude other monies and require they are identified differently e.g. the Belgium Bank Commission “because RES was calling itself a currency” (Kennedy et al., 2012:p115). Cf. Peña de Carrillo et al. (2018) for details of the RES virtual community currency (VCC). In the case of the USA the process of this “power” to “restrain” (Hurst, 1973:p180) (and thereby exclude other monies, which existed as part of its “money system” (Hurst, 1973:p180) is underpinned by law. Cf. Mihim (2009) for a historical exploration of this process of exclusion in moderating the “system of currency” (Mihim, 2009:p4) over the 19th and 20th centuries.

Thus, the word currency may be substituted for money; or the terms voucher or coupon used with no real explanation if they are money or not, as with the *sysmä* (Petz and Eskelinen, 2019). E-money or digital currency can be said to be the same thing (Berentsen, 1998) and any electronic form of money implied as being an AltCoin (Kamps and Kleinberg, 2018), by the attachment of the word COIN as a suffix, prefix or in the marketing hype surrounding a new project, as seen with the *sysmä*; and with the currencies promoted by the company Colu (Suberg, 2019).

Money itself can be regarded as nothing but an “obscuring layer” (Samuelson, 1997 [1948]:p53) or “a veil” (Klausinger, 1990:p617), in other words “merely a technical issue or a more convenient alternative to barter” (Petz and Eskelinen, 2019). This reference to barter avoids the issue that bartered goods (within the framework of market exchange barter) are a form of money (commodity money), thus thereby exchanging apples for oranges is no different from exchanging yen for euro?

Such a reductionist approach strips away the metalevel of currency flows and ignores that semantically money can be so much more than just representational tokens. It can be loaded with cultural meanings and is not “only money”. Money should be conceptualized in terms of money relations, as a social relation (Ingham, 1996). This is a Polanyian position. Polanyi described “the gold standard” as “the accepted name for a system of international commodity money” (Polanyi, 2001 [1944]:p202). He proposed that a great transformation had happened (to some extent, and unsuccessfully in his view) within money relations, to take money, as a tool of the market as a “commodity fiction” (Polanyi, 2001 [1944]:p204) toward acting in this debased way. We can contrast this money, acting in a market exchange barter, with reciprocity barter.

In market exchange barter there has been a commodification process, concomitant with alienation (Marx, 2009 [1844]) which makes pricing a key element of such exchanges. While it is certainly possible to show solidarity (Ziegler, 2008), and base transactions on other facets such as trust / reputation (Ye, 2013), delayed reciprocity (Prendergast and Stole 2000) and indirect reciprocity (Nowak and Sigmund, 2005) these are not essential and complete strangers may engage in market exchange barter without these considerations. There is nevertheless a move toward a “notional ‘equilibrium price’” as reported for the Lhomi for their agricultural goods at the bazaar (Humphrey, 1985) as a part of this process.

In reciprocity barter, in contrast, price is not a consideration. Here social norms rather than market norms predominate (Ariely, 2009). Multilateral barter (barter chains) (Guriev and Ickes, 2000) is possible with

reciprocity barter, for example the Vienna Happiness Project, based on happiness economics, has run offline and online Happiness Circles and Happiness Cafés (Stonham, 2019) where different language conversations are held to enable international, intercultural and intergenerational learning which includes Japanese, German, and English. In reciprocity barter almost the opposite of the price-giving-commodification can manifest, such as flower giving when a prettily wrapped low-cost bouquet - wherein “it’s the thought that counts” - renders the commodity aspect as relatively insignificant in comparison with the emotional currency of the gift.

Commodity backed money was used in Sysmä, Finland in the interwar period, with the dairy industry using milk as money. As physically carrying around milk is difficult, the form that existed was bills of exchange and bookkeeping barter (Parker, 2014). The use of other commodity moneys is recorded, for example in the 19th century in America (West, 1978). Accounting for such barter - not reciprocity barter, but market exchange barter (Dalton, 1982) - is problematic for armchair economic theorists, as for them these relatively recent forms put to the question old theories of how representational money arose. These theories are crystalized in the barter myth. The nice story here is: people without money began swapping goods and then found it was cumbersome, amongst other issues such as requiring the “coincidence” of wants (Jevons, 1989 [1875]), and it was better to use representational tokens, which became money. Initially those tokens were precious metals, and later lower value metals. Paper money arose later as credit notes or promissory notes, “documents representing those coins” (Menger, 1989 [1892]). Together these make up cash-money. Such a fantasy of functionalism eschews money relations in its crudity (Ingham, 1996).

Furthermore, an anthropological analysis of money shortages revealed, rather that, barter only arose where already existing representational money became less available, and is a substitution, on a temporary basis or in special circumstances (Dalton, 1982). Rather what existed before money were local economies of surplus (Hudson, 2004). Here a talkoot culture operated where surpluses were shared in extended kin and kith networks. Talkoot was traced to etymologically connect with harvest tides (Paterson, 2010) – surplus at these times would often be shared within a community rather than traded outside it. Since then the meaning of talkoot has broadened and been appropriated more widely than the Finnish rural tradition which is described by Köppä (2009) as: “People getting together for joint work efforts, based on voluntary participation, and collective reward through hospitality and enjoying of the shared work performance.”

Representational money, rather than being more convenient, acted to disrupt those relationships and erode local resilience. By allowing independence it facilitated isolationism and “is responsible for impersonal relations between people” (Simmel, 2004 [1907]:p273; Simmel, 1896). Of the various capitals recognized by such monetized economics, cultural and relational capitals (reciprocal / reciprocity) became of lesser value as the fungibility of the used money allowed them to be ignored (or at least de-emphasized) more easily than in a talkoot culture. A money free society has existed, with the Siane for example (Salisbury-Rowswell, 1957), and in utopian dreamers’ minds can exist again (Clarence-Smith, 2016; Fresco, 2002; More, 2012 [1516]; Saadia, 2016).

In such a context when we talk about money in our highly monetarized society, we are prone to think of only one kind of money (the culturally dominant form). This money is often termed fiat currency, due to its designation by fiat, that is an official legal order. The political process of implementing fiat money has often led to the deprecation and even banning of other monies and has led Zelizer to refer to this process as “creating market money” (Zelizer, 1994:p13). Money must fulfil several functions and have certain properties. One property is portability; and one function is that it facilitates the flow of an asset. It moves from issuer to spenders who transact it for goods or services. Here I focus on the movement, the dynamism I believe makes money into a currency. It flows and has a current or more accurately currents. Thus, currency is defined as the vitality or *lebendigkeit* of money in use. The properties could be better stated as having the potential for being realized (e.g. having the potential for portability). Identifying that potential can be done in the observation of it taking place – the proof of the pudding is in the eating. This concept of vitality, which focuses on the relational aspects comes from pattern science (Leitner, 2015; Humana and Schwartz, 2008; Petz, 2017:3.2; Leitner and Nahrada, 2014).

The word currency links with exchange. Exchange is when an agreement is made for one thing in return for another (Eriksen, 2001). Currency is, amongst other functions, the representational aspect of that exchange. Currency can thus be a synonym of money, though to be a currency by implication it should circulate. Money can

then be seen as an implicit shared understanding over currency, or “an agreement within a community to use something as a medium of exchange” (Lietaer, 2001:p93).

Indeed, money has functions beyond the representational tokens of coins and notes (Kennedy et al., 2012). Money is used within a given community for specific or general purposes. A community currency could be described as a more specific or special purpose money. The restrictions or specificity starts to indicate a possible typology; with the most restricted being a proto-community currency. They are restricted in how they can flow by design, who can use them, and where. There is a distinction here between the currents that are regulated, and whereto a money is allocated to be spent. The whereto is the domain and an accounting matter. This can be seen in the example of national economies where for example in the social allocation (in the USA) you have 3 big domains of health, welfare, and education (Soroka and Wlezein, 2010) with their own allocations or budgets. In the example of household economics, “domestic, gift and charitable money” via “earmarking of monies” (Zelizer, 1994:p85) has been identified.

This budgeting shows the polymorphous concept of money, where the same money can be conceived of in different ways based on “differences in the roles the items in question play in the real lives of the people” (Snelders et al., 1992). This can be referred to as “social money” (Zelizer, 1994:p4) manifesting via tokenization as near-money. Book tokens are such an example; as is gift money, i.e. gift cards and gift vouchers (Chan et al., 2016). This tokenization can be extended as asset tokenization with a blockchain ledger where the token represents any tangible or intangible asset (CoreLedger, 2019). The resultant tokens can fulfill whichever properties and functions of money are designed and legally-culturally-socially accepted.

Proto-community currencies do have something in common with how barter really arose, that is they are introduced into a society which already has cultural familiarity with a functioning money system and flowing currency, to meet a need that existing currencies cannot. Unlike community currencies, proto-community currencies are not aiming (or at least initially) at replacement of existing money relations and very much are complementary to them. Their designers thus may have no intention to evolve or develop them into more. The examples in this paper show this with; the *sysmä* introduced to counter rural population decline, *Pisteet kotiin@* to reduce maintenance costs, and the *BookMooch* points to swap books.

When researching community currencies, we find generational typologies were attempted, though often the chronological is conflated with the developmental. So, a first-generation currency in one location may have features not found in a first-generation currency elsewhere. Generations can be dependent on the trajectory within and of a society taking into account cultural evolutionary factors that can be exogenous not only endogenous (Miyazaki and Kurita, 2018; Nishibe, 2018).

Geographical typology is slightly easier to work with and is based on whether a currency is used “locally, regionally, nationally, or internationally” (Kennedy, 2012:p51). This relates more to the geographical ideas behind community rather than a community of interest (Kennedy, 2012). While a regional currency, such as the Lake District Pound may be geographically delimited – to the Lake District in England; it has fewer users than the Bristol Pound; fewer features too, although it was intended to have a higher capitalisation; and use over a greater geographical area, as a rural rather than urban community currency (personal communication from Ken Royall, Chief Executive, The Lakes Currency Project Ltd., 2018). These 2 Pounds in juxtaposition shows the challenge of classification.

A further layer of complexity is added by trying to put the nominally generational classifications under cultural realms (Brown, 2001), sub-regional or even national descriptors, which come from the spatial geography found in the economic geography sub-discipline and touches on cultural evolution, see Nishibe (2018) for an attempt to map this.

Purposeful, as a typology would see community currencies classified, “according to the specific areas they target, such as education, health, small and medium enterprises, culture, pension plans” (Kennedy, 2012:p51) and not an axis of individual to general public as (Martignoni, 2012) proposes. Here I propose to look at the appearance of new monetary forms. I suggest the very limitations contained within them are limitations which make them not

have the same status as fiat currency acting in all its forms and properties, yet still they partially act as money – money could substitute for them, though not vice-versa.

Instead of these other typologies, I propose we include all the forms of financial asset classes in our continuum, and call this, after the accounting term Cash and Cash Equivalents (CCE) (Ernst & Young, 2019), the CCE Continuum (Table 1).

Table 1: The CCE Continuum.

near-money, proto-money / proto-community currencies
community currencies (CCs), local currencies
fiat money (better termed fiat currency) / community money
all capitals community money

There are debates around defining all these assets (Elliott and Elliott, 2012). Fiat money is perhaps the clearest asset class as it can be gazetted or defined in written law, and as in this paper via properties and functions. The other asset classes can be compared and contrasted via these aspects. It has been claimed “that money is a ‘unique’ asset in that it has no close substitutes” (Husted and Rush, 1984). Fiat money’s substitutability by near-money and how to account for cash equivalents means that I do not offer speculation on what generally accepted accounting principles (which vary, even internationally between accountants) should say on any particular instrument or asset here. This overall lack of clarity has been thrown under the spotlight recently by questions raised by what accountancy should do with digital currency (Venter, 2018). Suffice to say: demand deposits, short-term investments, money market funds, investments with maturities less than three months and bank overdrafts can all be considered in this framing as near money. Additionally, any asset could via tokenization (CoreLedger, 2019) also be considered here. For them to flow promissory notes, money orders, bankers draft checks, share certificates or land title deeds for example provide a ready mechanism as a paper or digital instrument.

We have 3 terms to be clear on:

1.1.1 Money

The form the items that transact are in: cash-money, e-money and other types (Bech and Garratt, 2017).

1.1.2 Currency

The movement and flows: via computer transactions, transfer of physical objects, or by use of documents. Currency is conceived as current-see, which is a flow of capital(s) and that happens within a system called a currency system. Currency was defined above as the vitality of money in use, to differentiate money from currency.

1.1.3 Currency system

How the system of use functions. Thus, the concept of a nested hierarchy exists with money, acting as a currency, within a currency system.

What features do we find in proto-money? And which are missing, while maintaining functionality? In the CEE Continuum there is a final form of money- all capitals community money. This form seems absent from discussions about how money could operate and contains the idea of money capturing all the capitals (see Capitals, Assets, and Factors, 1.2.3 below) in the way that the surplus economy of talkoot did. Here money relations would not be based on scarcity, but on abundance.

1.2. Properties and Functions of Money and Capitals

1.2.1 Properties of Money

To operate, money demands certain properties or characteristics (Aliyu, 2018) (Table 2).

Table 2: The Properties of Money.

Fungibility	Its individual units (meaning it is divisible and thus countable), are interchangeable. Thus, money is comprised of smaller units.
Durability	It can withstand repeated use. With digital currencies data loss or corruption shows there is still a durability property requirement.
Portability	It is easily moved around either directly or via representational movement.
Usability	It is conveniently usable. Complicated procedures for access or spending render what could be money as no longer money or vice-versa. This has a cultural acceptance aspect (acceptability), not just portability. This may be legally mediated, so restrictions on high value notes (to counter money laundering in the Eurozone). Or by custom such as refusal to take low value coins (1 and 2 Eurocent coins by retailers in Finland). Or due to ethics, such as refusal to accept euro coins as restaurant tips in London, as I experienced. These are examples of such usability aspects.
Cognizability	Its value must be easily identified by users. Aliyu (2018) considers this requires uniformity, saying "Uniformity of money calls for a standardization of money so that it looks the same.
Stability of value	Its value should not fluctuate. The money illusion is an interesting paradox here (Shafir, Diamond and Tversky, 1997). However, a consistent (bounded) decline is still a rate of value stability. Hyperinflation or removal from circulation (as with 1 penny and 2 pence coins in the UK, due to increasing value of the copper in these coins over their nominal values) render the money as no longer having this property. See Oresme-Copernicus-Gresham's Law on this (Sparavigna, 2014).
Scarcity	There is control over how much can be held or acquired or spent. Crypto currencies require limitations on issuance for them to have value enough to be used. It is only in the situation of demand that a utility value accrues to money. Excess beyond sufficiency would not be used and thus would not be functioning as money.

1.2.2 Functions of Money

Conventional economists reduce these to 3 functions: Medium, Measure and Store (Samuelson and Nordhaus, 2010a). Some claim money can have more functions, up to 6 (Aliyu, 2018), with Aliyu's ontology additionally giving the functions: the basis of credit, unit of account, and standard of deferred (postponed) payment. There is a way to talk about types of money in usage as the money supply or money aggregates e.g. M0, M1, M2, M3, M4, MB, MZ and L. How these terms are defined and used varies between central banks (Anderson, 2003; Wikipedia contributors, 2019). Nevertheless, these types of money are the mechanisms for creating / identifying money, which then (debatably) fulfil money functions (Table 3).

Table 3: The Functions of Money.

Measure of value	Services and goods can be priced in it and compared with each other and thus it is a unit of account. Some split unit of account from measure of value.
Standard of deferred payment	It can be used to value a debt over time. Some say this is pricing of a debt and a debt is a service, so this is just a measure of value.
Store of value	It can be saved and subsequently realised without loss of value.
Credit	It allows the units to be borrowed in advance to pay for goods or services now, and then paid off later. Ultimately, they can be created de novo in the system as “quantitative easing” and removed as “quantitative tightening”.
Medium of Exchange	Its value must be easily realised, so when used it can replace the coincidence of wants issue, making exchange possible. It is arguable that it is money if it facilitates a current-see - a flow of a capital / capital-flow, and if it does not facilitate any flow then it is not money. Thus, medium of exchange could be replaced with facilitates a flow of an asset, which can be a tangible or intangible good, service or combinations of both.

1.2.3 Capitals, Assets, and Factors

Mainstream economics regards capitals as factors of production. There are principally 3: Land, Labour, and Capital (Ricardo 2001 [1821]) known as primary factors, which encapsulate others (so Information falls under knowledge and thus Labour and is debatably considered a secondary or produced factor of production) (Cohen, 2003; Lee, 2017) and those excluded are referred to as externalities (both positive, which is a benefit not paid for – such as pollination of garden plants by bees kept by a bee keeper; and negative, which is a cost imposed on those not benefiting from production – such as pollution) (Callon, 1998). They are very anthropocentric; and if there is no relationship to people, they are not considered at all (Naudé, 2017).

Current theorists treat capitals as having mutual substitutability to a greater degree – termed, weak sustainability; or lesser degree – termed, strong sustainability respectively (Coulson et al., 2015), though nothing can be completely substituted. Ecological theory, concerning plant growth, talks of Liebig’s Limitations of the Minimum – there is a limiting nutrient which cannot be compensated with replacement by another nutrient (Danger et al., 2008). I believe the same idea has merit in being applied to economics with different capitals being required for balanced socio-environmental-economic functioning. Thus, there is an economics of co-abundance (strong sustainability) though not a single limit as such, problems will arise if there is an absence of some capitals.

In such ecological approaches factors of production are avoided and instead they are referred to as capitals. Green economics regards more capitals as being present with up to 8 being used (Table 4). There are still externalities, though the aim is to be fully inclusive with the concept of the circular economy (Korhonen et al., 2018) often implicitly thought of by green economists. There is confusion here, as different thinkers have different conceptions and divisions, so to be clear in this paper we can think of a capital as analogous to money (an asset which can be tangible or intangible; primary or secondary).

Table 4: The Evolution of Green Capitalist Approaches: Capitals as Named by Scholars.

Ricardo 2001 [1821])	Ekins et al., 1992	Porritt, 2007	Flower, 2015	Adams, 2015	Flora et al., 2018	Levy and Wyckoff, 2014	Roland and Landua, 2015
Land	Ecological	Natural	Natural	Natural	Natural	Natural	Living
Labour	Human	Human	Human	Human	Human	Individual	
Capital		Financial	Financial	Financial	Financial	Financial	Financial
(Machinery)	Manufactured	Manufactured	Manufactured	Manufactured	Built	Built	Material
	Social Organizational	Social	Social & Relationship	Social/Relationship	Social	Social	Social
			Intellectual	Intellectual		Intellectual	Knowledge
				Strategic	Political	Political	
					Cultural	Cultural	Cultural
							Emotional & Spiritual
							Time

1.3. Current-sees and Meta-level Monetary Considerations

Measuring these capitals, properties and functions are important for assessing the functioning and fitness for purpose of both money and currency in a system. This functioning is considered with the concept of current-see, which is the demonstrated movement as a flow of a capital (Brock and Harris-Braun, 2011)¹. Again, with different conceptions of capitals, identifying them and flows as discrete flows with different disaggregations can lead to different results. The current-see concept does not make this clearer, due to lack of agreed boundaries over such current-sees. A good example is Land, now seen as Natural Capital and in turn is lexically expanded to Living Capital (Roland and Landua, 2015) thus matching Lovelock's concept of Gaia, which includes all processes and life found about the planet Earth (Lovelock, 2007). So, current-sees of "hooves and trees" would be called differently from those of "prairie and forest".

Each of these typologies reveals a conception of the world. This Weltanschauung is made stark by contrasting: Macroeconomics; which is concerned with flows in aggregate operating at the national economy scale (Samuelson and Nordhaus, 2010b) or deals with accounting which is largely depersonalised (Morgan, 2001). With microeconomics; which looks at the household and even individual scale (Case et al., 2007). In praxis microeconomics and macroeconomics have a blindness towards local (not regional, which is at a different scale) and community economics (Hill and Myatt, 2010; Marglin, 2008). This is exacerbated by reducing economics to only looking at flows of financial capital i.e. (fiat) money. Current-see was conceived as a way to look at flows, not of money – which is seen as representational in abstract of concrete transactions - but of all the other things which money flows are an abstraction of (Brock and Harris-Braun, 2011:m12:54). So, when goods and services exchange what actually happens in addition to the financial transfers going on; the relational capital, the reputational capital, the physical and environmental transformations and even emotional transactions which may result. (cf. Hülsmann, (2008) to explore how ethics of money and morality influenced money design and modern economic

approaches; cf. Palley, (2018) for a debate over the origins of modern money, why of money, moneyness, modern monetary theory and functionalism in monetary theory).

There is an overall utopian framing the inventors (Arthur Brock and Eric Harris-Braun) and adopters using the label “MetaCurrency Project” and others (e.g. Leander Bindewald) apply to current-sees (Bindewald, 2018:p69). In my reading of their view there is not one current-see but several current-sees operating in an economic environment and mutually reinforcing each other to create a new kind of economic ecology. Here we are part of the natural order and not dominating nor controlling it but working synergistically with it. So it is like talking about a family or a collection of current-sees operating in concert, and isolating a single current-see does not make sense, it fails to take into account the holistic-cybernetic-systems approach we find in “every living system” (Brock and Harris-Braun, 2011:m14:27), that any current-see operates in. Rather we must talk of current-sees in the plural.

There is a belief that society will transform, and individual motivations will undergo a cultural evolution, merely by the development of different current-sees, practices and protocols as they emerge in our current econosphere (they are believed to create an emergent property by their very manifestation). There is some design science behind this thinking, with the idea that pattern languages and pattern science (Finidori, 2015) can capture some of these relational aspects. The difference between: instrumental values and intrinsic values; self-actualization v. survivalism; and even the different levels societies may be in as regards spiral dynamics (Wilber, 2001) are poorly accounted for by these ideas. Especially if we try to describe a current-see.

To consider current-sees we need some notion of the properties and functions of current-sees and currencies, just as we have of money. Then we can assess if a community-currency is well functioning or not. Knowing this allows us to troubleshoot, redesign and repurpose so that the money (which although well designed e.g. in the case of the *sysmä* e-money explored below) has failed as a working currency system for those that wanted it to fulfil certain purposes due to lacks in terms of current-see (e.g. in the case of the *sysmä* allowing it to return to the source for reissuance). Aids to thinking about current-sees are: Arthur Brock’s *FlowSpace Brainstorming Worksheet* (Brock, 2005); *Designing Social Flows* (Brock, 2014); and *Cultivating Flows* (Wagter and Russell, 2016).

2. RESEARCH AIMS, DATA AND METHODS

The aim of this research was to look at near money (Chan et al., 2016) proto-community currencies in Finland in 2018 and consider how they are / did not function as successful general-purpose money. *BookMooch* is somewhat of an outlier as it operates at a global level, yet it makes a useful comparison when considered with alternatives, as a community of interest / community of use, rather than a geographical community. These small schemes were chosen partly from convenience sampling (Teddlie and Yu, 2007), and because in using them, I gained an insider perspective on them.

As a researcher, I am embedded in the world I research. Consequently, my personal milieu as a citizen du monde, activist and scientist influence my methodology and research opportunities. Some of my contemporaries (Aubret et al., 2014; Das, 2015; Paterson, 2011;2020), follow similar methodologies, to capture our lived experiences which have been described as auto-archaeology (Buchli and Lucas, 2001; Harrison and Schofield, 2009) and autoethnography (Adams et al., 2015). There is a particular desire to capture minority existences, the liminal and cultures of resistance which are vulnerable to erasure or distortion by domination of mainstream cultures acting in a hegemonic way. Nevertheless my theoretical approach was a scientific one, though I lean more toward that of an integral theory model, something that is shared by other researches in community currency (Arnsperger, 2010; Lietaer et al., 2012) and an enlarged explanation of can be seen in the work of Place (2018; 2019). I also use Artistic Research Methods (ARM) (Petz, 2017:3.3-3.4) and a fuller description can be found in a paper on the *sysmä* (Petz and Eskelinen, 2019).

Data was collected by participant observation and semi-structured expert interviews (n=30) in all schemes. I live in a VTS-kodit home, so use the *Pisteet kotiin®* as a resident; I have used *BookMooch* as a member for the past 9 years, and I went to live in *Sysmä* during the trial phase of the *sysmä* proto-community currency. Such intimate familiarity and snowball sampling (Goodman, 1961) helped identify suitable interviewees. Additional media surveying, internet webscrapes and online surveying supplemented this data. Particularly useful were the VTS-

kodit residents' newsletter (Asukasviesti) which was subject to content analysis (Neuendorf, 2017); all the BookMooch transaction records and forum records from the last decade, which are available online; and minutes of meetings re the *sysmä*. The FlowSpace Brainstorming Worksheet (Brock, 2005) was used along with different capitals to explore differences between the schemes. These were then textually tabulated and tagged for presence or absence of properties or functions of money. This then allows an analysis as to placement in the CCE Continuum (Table 1).

3. ANALYSIS

3.1 Context to Finland and digital payments

Finland has some factors that foster fintech. The country has been in the last 2 decades very keen to promote innovation in many sectors. The rise of Nokia Oyj (Cord, 2014; Siilasmaa, 2018) then more recently Rovio Entertainment Oyj and Supercell Oy reveal a strong concentration on IT related innovation in the quaternary sector (Cheng, 2012; Härmä, 2013). More recently Fintech Finland, which was founded in 2017 by the Fintech Executive Community Finland, are collaborating with the Helsinki Business Hub to create a Fintech Farm to promote the development of this industry (Hallikainen, 2019). "Finland has roughly 160 fintech companies in the fields of payments, cryptocurrencies, blockchain, insurance, security&compliance, APIs&platforms, data&analytics, customer services&acquisition, financial software, wealth management, investing, financing and personal finance management. One of the strongest areas in Finland are financial software, back-end technologies, financing and payments" (Helsinki Fintech Farm, 2019).

However, the three schemes of this article do not originate from the profit motive of firms. Instead they show a wider public desire to use the high computer literacy present in Finland for social innovation. A strong enabling factor is the high education of Finnish residents. This includes technological literacy and English. These are significant in being able to access both knowledge capital and making use of relational capital through the existing high ICT access (OECD, 2015). In the non-commercial sector Linux is such an innovation, which arose due to these capitals combined with a sharing approach (Puttonen, 2001). That sharing economy (Lahti and Selosmaa, 2013) or collaborative consumption comes from the cultural roots of Finland as a welfare society. While these roots can be traced back to the presence of the state-church (Pesonen and Riihinen, 2018) and influences from Britain (Marklund, 1988; Kuhnle and Hort, 2004) there are other influences from within Finnish culture.

The talkoot culture is still active in Finland with talkoots taking place in VTS-kodit properties (Kivistö, 2017), in *Sysmä* (anttil, 2012), and within the book swapping culture. In the latter case this has been through BookCrossing where some BookMoochers are members too (pooca, 2015). While talkoots vary from: tietotalkoots – information talkoots, which are more about increasing knowledge within a community (Petz, 2017:3.4); to a pihatalkoot – yard talkoots, the most common form, which are for cleaning-up a communal space and have stretched to a world talkoot (World Cleanup Day, 2018) they share certain features. They support the care of club goods while working together (Botero and Saad-Sulonen, 2013). In this sense the BookCrossing talkoot has developed the sharing of books and built the culture around facilitating that. The possibility to use a community currency or proto-community currency is a small step toward a sharing non-monetary economy, which already exists, and yet does not flow as it might if certain current-sees are stimulated.

There are many associations, foundations and NGOs in Finland, which could use community currencies. Municipalities are fairly-well funded and could explore such innovations too. The first sector has provided some economic stimulus: e.g. Fintech Farm funded by the Ministry of Economic Affairs and Employment, the City of Helsinki and private partners (Helsinki Fintech Farm, 2019); and has the QUANGOs: VTT, Business Finland (from a 2018 merger of TEKES with Finpro Oy) and SITRA (Sjöstedt and Nojonen, 2011) supporting innovation. Increasingly the idea of the circular economy is taking root in that innovation ecology. VTS-kodit is a member of The Association for Finnish Work. The Association, founded in Tampere in 1912, is highly rated by consumers and published The High Value Manifesto (Curry et al., 2015) and Making High Value Work: The Business Briefing (Curry et al., 2014) to influence government policy and business practices. The Manifesto states "policy should address the full range of innovation, including production processes, organisational innovation and social innovation. Innovation policy in Finland should include service and strategic design elements, incorporating these also into traditional product and technology driven sectors" (Curry et al., 2015:p15). Furthermore, with implied

criticism, recommending that “Finnish public policy and legislation should seek to widen the diversity of business ownership types in Finland.” (Curry et al., 2015:p26).

As Finland already has quite a liberal arrangement with its cooperative law and the possibility for associations and foundations to engage in non-profit operations it is worth highlighting the biggest barrier to development of the community currencies found in this research. This appears to be the tax law. Many possibilities for developing the talkoot and sharing economy are stymied by the desire to treat every transaction as a professional service which must be charged at professional rates according to the collective agreements negotiated by unions which set out pay scales for workers. Unlike in other countries small scale community operations can be regarded as tax liable. A tax decision taken around this idea has led to a rapid decline in LETS schemes, and seriously damaged the growth and development of the Stadin Aikapankki (a Helsinki based timebank) (Eskelinen, 2020). This rent-seeking tax policy (Angelopoulos et al., 2009) is a block on innovation and the development of flows of different capitals. It causes a domination of neoliberal capitalism favouring statism and not the community sector.

Other inhibitory cultural factors include: bureaucracy, which prevents crowdfunding unless a license is obtained from the police (Hooghiemstra and de Buysere, 2016); racism, which prevents immigrants from bringing their knowledge and experience into praxis (Ahmad, 2019; Tessieri, 2017; Mashaire, 2014); and a certain kind of stubbornness called *sisu* (Lahti, 2013) (determination in the face of adversity), which can be a good thing when applied to perseverance in overcoming obstacles to new projects, but a bad thing when insistence on following a certain path or way as expected from historical experience despite it not being the best course of action. Nevertheless, some people and organisations do innovate and bring in alternatives.

3.2 Description of Schemes

3.2.1 *sysmä*

Sysmä is a rural municipality, located in the Lake District of Finland, which as a post-productivist agricultural area has chronic population decline. Fewer people in the municipality results in an eroding tax-base and thus a financial shortfall to pay for expected local services. This decline in revenue acted as a stimulus for innovations to deal with this pressure, and one was the *Kuponkieuro ja Pienyritysten Verkosto* (*Sysmä euro-voucher and small entrepreneur network*) (PHL, 2017) which created the *sysmä raha* (*sysmä money*). It was run by *Sysmä* municipality as a project. The *sysmä* was a digitally based hyperlocal system of account, branded as a local currency, and trialled in 2018. It was voluntary for businesses and consumers. However, local road communities and associations were effectively forced to join if they wanted grants from the municipality. It was inspired by loyalty cards (Petz and Eskelinen, 2019).

3.2.2 *Pisteet kotiin®*

Tampere is a post-industrial city, on the edge of the Lake District of Finland, with a significant working-class history and an increasing population. It has a strong solidarity culture with red (Heinonen and Leivo, 2015), anarchist (Shcherbinin, 2013), feminist (Tamminen, 2014), activist (Shcherbinin, 2013) and agonistic (Bäcklund and Mäntysalo, 2010) influences. In 1970 the municipality founded *Vuokratalosäätiö ry* (Rental House Foundation) to provide below market-rate rented property. *VTS-kodit* has introduced a points system called *Pisteet kotiin®* (literally: bring the points home). The *Pisteet kotiin®* development began in 2002 and was operational in 2008 (Jantunen, 2012). It is digitally based with points earned for tenant action (VTS, 2018); paying rent on time, buying insurance or involvement in residence committees (Jantunen, 2018), which bring a paper voucher for use with partners in local service or domestic goods firms. It is effectively a loyalty scheme which all residents belong to by default, although individuals can opt out of it. Note that the *Pisteet kotiin®* home points scheme was set up for tenants (those who pay rent) and is not yet extended to all residents (those that may live in a VTS home, for example children of tenants). *Pisteet kotiin®* is a successful technology transfer from the *Woningstichting Rochdale* in Amsterdam (Jantunen, 2012), and is in turn being copied by *Jyväskylän Vuokra-asunnot Oy* (Jyväskylä Rental-housing Ltd.) in Jyväskylä (JVA, 2019).

3.2.3 BookMooch

BookMooch was founded in California by John Buckman in 2006 and underwent rapid growth with other book-swapping websites (Buckman, 2010:m3). It is digitally based on a points system with points earned for books added or essentially gifted away, which are traded on the system (Buckman, c2011). There were a few other ways to earn a very minimal amount of points, but these did not develop and in fact development of alternative uses was limited by the founder (Burns, 2006). There are active members in Finland. It was always free to join and use.

3.3 Analysis of The Properties of Money Within the Schemes

As these schemes are proto-community currencies they do not manifest all the properties of money. Yet they do manifest some to various degrees (Table 5).

Table 5: Schemes Compared - The Properties of Money.

Scheme Property	BookMooch	sysmä	Pisteet kotiin®
Fungibility	Y	N1.	N1.
Durability	Y	N	N
Portability	P2.	P2.	P2.
Usability	Y	N3.	N
Cognizability	Y	N	N
Stability of Value	Y/N4.	Y (for consumer)/ N5.	Y (so far)
Scarcity	N6.	Y	Y

Key: Y = Property Present; N = Property Not Present; P = Property Partially Present

As the representational “note” for sysmä and Pisteet kotiin® is a voucher, where the vouchers have varied values, one voucher is not substitutable for another. Effectively they are bills of exchange, meaning the sysmä and Pisteet kotiin® lack fungibility (Table5: N1).

BookMooch points are only electronic and easily transferred electronically, so are thus portable. sysmä and Pisteet kotiin® are electronically stored, but not portable as printed QR codes and vouchers respectively are required for their spending. Lack of convenient usage means both sysmä and Pisteet kotiin® fail on the usability property of money (Table5: P2).

The sysmä was also not usable as it needed to be recognised by a community of people. It lacked social acceptability due to cultural reasons (Table 5: N3). Something seen with the refusal of the Stroud Pound (Cato and Suárez, 2012). Pisteet kotiin® does not meet the usability threshold for money as it is complicated to spend it, with a voucher and authorization acting as cash controls, to render it away from a community currency to a proto-community currency in the CCE Continuum (Table 1).

Stability of value is present, but not universal, in all schemes. The BookMooch purchasing power varies according to country (Table 5: Y/N4) : so if the Moocher (Mooch member buying a book) registers their account in the same country as the Moochee (Mooch member selling a book), the cost and value of 1 Mooch Point = 1 book; in a different country (Moochee and Moocher are not registered in the same country) the value of 1 Mooch Point is 1/3 of a book, i.e. 3 points are needed to buy = 1 book. This is a soft capital control, as people can smooch points back (Carolyn, 2012) and make offers at different rates (which happens).

The *sysmä* exchange value (Table 5: N4) had a 5% bonus for over 100 euro. In theory the retailers were to bear this cost if exchanging back to euro. As water bills could be paid from these *sysmä* the value was, different if a retailer decided to exchange for euro or to use *sysmä* to pay a water bill denominated in euro. It appears this was not fully implemented. Thus the value though predictable could change with these variables so was not acting as general purpose money, it was a special purpose money, or rather a proto-community currency, with restricted properties to facilitate certain current-sees and inhibit functions of money to prevent the flow of other current-sees being restricted.

(Table 5: N6) claims for BookMooch there is scarcity, though any book added to the system earns point(s), thus only a theoretical scarcity limit (how many books exist). Yet akin to inflation, without removal of books; or growth, like in a pyramid scheme, there can be more points than members can spend – thus scarcity is eroded by this points-surplus. Additionally, BookMooch Journals - a user generated traveling arts journal project (Tennant, 2008), can be created and added, at least one author had a print run offered with a freemium (Pujol, 2011) scheme on his book, which allows the means of production to be in member hands.

3.4 Analysis of the Functions of Money Within the Schemes

Over time the money functions fulfilled by the schemes have changed, so an assessment must consider features that are present at a single time within a similar institutional framework for a fair comparison. Table 6 shows the schemes as they were all operating in 2018.

Table 6: Schemes Compared - The Functions of Money.

Scheme Function	BookMooch	<i>sysmä</i>	Pisteet kotiin®
Medium	Y	Y	Y
Measure	Y	Y	Y
Standard	Y	N	N
Store	Y	N2.	Y
Credit	N1. (historically Y)	N3. (local Q.E.)	N

Key: Y = Property Present; N = Property Not Present

It can be seen that (Table 6: N1.) the credit function is missing from all three schemes. Originally it was possible to go into debt with BookMooch, but now it is not. There is no longer an “Unofficial Bank of BookMooch” (McBride, 2009) to lend points, nor “BookMooch Angels Fund” to credit them for mooching books for others in a peer to peer lending model, nor create them (as used to happen with international mooches) (Cara, c2011). A formula applied to members limits mooching books, and how many you send, to prevent debt and thus credit arising. That formula is stated as a “2:1 ratio: you have to send out at least 1 book for every 2 you receive. If you don't keep this ratio up, you won't be able to mooch any books, even if you have the points, until you improve your ratio. Sending internationally counts as 3 books” (Buckman, c2011). This loss meant in current-see terms that social, emotional, knowledge, material and to some extent cultural capital have all been eroded. Pooling and sticking points have been increased, rather than a flowing system.

Experimentally an “airdrop” (Alassouli, 2018) of 5 *sysmä* was trialled, which some considered to be helicopter money (cf. Jourdan, 2020 for a discussion about helicopter money). It could be used to give credit if the system was changed from all *sysmä* being backed by fiat-money. There is no consumer credit (Table 6: N3), though effectively there is a local quantitative easing, which is a form of credit with the money given to local association and road communities as block grants in *sysmä*.

Pisteet kotiin® has no credit function, but could be given in a mortgage type scheme, which would be paid off over time by rent.

BookMooch fulfils most of the functions of money, admittedly a special purpose money, that can only be spent in certain places. It does not fulfil all functions as it is no longer used for credit. The *sysmä* and Pisteet kotiin® are both related to fiat currency and could be called subsystems of that fiat currency. Like the Barter Clubs of Argentina *credito* which was beholden to the peso (Ould-Ahmed, 2010), this argues for them not being money. However, independence is neither a function nor property of money, as fixed rate exchange systems indicates for many fiat currencies in use today.

The *sysmä* as ran lacked the store function (Table 6: N2) as it ran till the year's end (during the trial phase, but was planned for such annual retirements of currency anyway) and then had to be surrendered or the value was lost. While it ran it acted as a store of value, but the focus was on it transacting not storing value. The usability value came from attempting to stimulate the flow of social and relationship capital, this current-see would then hopefully increase financial flows, knowledge flows, material flows and even living capital if more people would come to *sysmä*. The failure of social and relationship flows also led to a damage toward political capital.

The *sysmä* and Pisteet kotiin® can be used for measure of value. A 5 *sysmä* offer was made at the *Sysmä* Camping business for a coffee and brioche; and the cost of painting a wall is given in Pisteet kotiin® (tainak, 2018) neither can be used as a standard of deferred payment as they cannot be used for a debt value over time. Immediate purchase is required for *sysmä*, and Pisteet kotiin® must be used to pay for a service or product. When the Pisteet kotiin® are converted to a voucher, this is a negotiable instrument, like a cheque, which is limited in time and arguably a deferred payment, but it is not a standard as it is: a. denominated in euro, not points (pisteet); b. its validity is limited to a very short time, as we would find with company paper.

From this analysis it can be claimed BookMooch has largely acted as a currency system with Mooch points being a money property-wise and functioning as a community currency, but the *sysmä* and Pisteet kotiin® do not meet the threshold to act as money or a currency.

4. DISCUSSION

Limitation of the flows in these schemes can be accidental, but this serendipitously allows a measure of control on how they are used. They could be co-designed to enable more flows and more properties of money. The *sysmä* could be enabled as a store of value. Mooch points could be enabled to trade other things. The Pisteet kotiin® could act as a medium of exchange with other holders of Pisteet kotiin®, so for example thus getting more participation in running a collective kitchen to counter old people's loneliness and increase food literacy (Truman et al., 2017).

While all three of them can be hacked, and used in these ways, there are strong disincentives to doing this. Alternatives are easier to develop, which are limited to specific purposes. For example, tourist money (Warner, 2014) issued on an annual basis and then retired can act as a promotional tool for events over a tourist season. A note itself, while used over a summer as functioning money yet conceived, as a souvenir would earn seigniorage. In *Sysmä* a separate tourist currency could trade over a much wider, perhaps regional area. Were the value to be stored to subsequent years this could be disruptive when attempting to carry out quantitative easing, by allowing more currency to enter that economy.

Local quantitative easing or tightening is possible by use of the policy mix over payments for the local council services, water bills or local taxes with that money. In *Sysmä* it would make sense to use the *sysmä* issued from the municipality to limit the flows of finance within the area when it comes to the road communities and local associations. For that proto-community currency to be a store of value, over several winter seasons, when demand for buying stone for fixing roads can vary is useful. A hyperlocal only issuance as *sysmä* reduces the risk of embezzlement or for any association to use grants for speculation.

BookMooch points, could apply to the nebulous "favors", notwithstanding the difficulty of describing what a unit of favor could be (Buckman et al., 2015). The system and architecture of the community is there. There was interest in so developing both by the founder (Buckman et al., 2015) and members (Fast et al., 2008). There were

some successful members' innovations in the form of the Angel Network, the Unofficial Bank of BookMooch and even the BookMooch journals. By using the lens of current-see we can elucidate that there is a relational capital flow here, trust was built by feedback comments, smooches and forum use. The forums, with various subjects facilitated an Angel Network; people were willing to give time or points to support not only BookMooch, but "charity" accounts, and thus certain institutions and wider community development at a global level.

When juxtaposed with BookCrossing, another book-swapping site that is currently more vibrant than BookMooch, there are clear differences. BookCrossing relies on a new conception of flow-value of the books, which while they can be retained, focuses more on making books circulate and building a community of use and interest. Hence the common BookCrossing "get-togethers", "meetups", "conventions" (BC, 2019a) and in Finland "talkoot" show this friendship is the community of book-reading, not ownership of physical property in books. There is in effect a constant flow, with no points to be accumulated and then spent in order to get more books. The well-functioning Finnish forum (BC, 2019b) shows BookCrossing enables these community enriching flows whereas BookMooch does not (Fast et al., 2008).

Could these book-swapping projects allow swapping of other things? Would our proto-community currency be more useful without its limitations to only books? BookMoochers accept a book is worth one point; even though they can see varied pricing in fiat money via Amazon's prices juxtaposed in the Your Wishlist page in BookMooch. Timebanks and LETS projects, which tried to equate everyone's time as of equal value have struggled in societies where people or institutions are not willing to recognize everyone's time as equal (Eskelinen, 2020).

Limiting to only books works as the value is agreed and inflation-proof. However, there is an accounting conundrum. If we try to think like an accountant and work out the cash equivalency we soon come unstuck as the book values in fiat cash-money terms vary greatly. We could force the situation by considering an estimated value, and regarding these books as restricted cash equivalents. Doing the same across product classes without fiat currency is more challenging.

A limited site builds trust and familiarity, around a product class, whereas an (over) diversification (Palich, Cardinal and Miller, 2000) of offerings may erode them? However, trust maybe related to the kind of trust, if it is distributed trust (Botsman, 2017) based on the user reputational capital then offering diversity is not the issue, rather the current-see approach shows it is harder to monitor flows in many capitals.

VTS-kodit limits its Pisteet kotiin® mainly due to tax complications, something affecting the community currencies throughout Finland. Nevertheless, there is a legal possibility to turn tenants into cooperative members and allow them to trade with each other (Unkuri, 2018) which would bypass this issue to some extent. The system was extended to allow earning of points by community engagement.

We can use the current-see lens to see this worked to support the VTS-kodin Asukasdemokratia-rhymä (literally: ResidentDemocracy-group). This AD-group "develops residential activity and takes a stand on the economic and operational development of VTS homes. The AD-group meets 4-6 times a year often around a major theme, such as property maintenance or housing satisfaction" (Jantunen, 2017). The AD-group, and Asukastoimikunta (residence committee) members get points. Points are available for participating in related courses too (VTS, 2017). These incentivise residents to be active community members. If points could be traded with other residents it could be beneficial in spreading knowledge capital and wealth for solidarity, rather than individualism as at present.

Such a forward-thinking policy has precedence in public policy, and thus cultural familiarity in the housing sector, in Finland. Homelessness is tackled in Finland under a Housing First model, where good quality housing is given to homeless people and then remedial work is done on the factors affecting them such as alcoholism, criminal recidivism et cetera (Pleace et al., 2016). The Pisteet kotiin® could be given in such a futuristic way, where home-improvements and rewards for civic engagement were given prior to the engagement. This would create a credit and a standard of deferred payment function in the points-system. This is much as fiat money functions with loans for home improvement or career development. Pisteet kotiin® is now being described as a "tenant benefit system" and being updated where the "aim is to improve and diversify the use of the benefit points" (Jantunen,

2019) within “part of the implementation of VTS-kodit’s strategy, in accordance with which we provide our tenants with the foundation for a good life” (Eskelinen, 2019).

The limitations of these proto-community currencies are there by design to fulfil the purposes which the communities that use them want. They are adequate for the purposes which they are aimed to fulfil and evolving them to meet a wider range of flows would change the milieu in which they operate, with a different focus and outcomes. While this can be desirable, this makes them no longer as merely a tool to serve those existing communities, but engages with the paradigm of technological determinism, whereby a technology shapes the community by its usage. Transformation and alteration of the community necessarily will alter the flows and capitals. If such social engineering is desirable or not is a matter of opinion. In Finland public-policy is having a limited influence on the municipal application of community currencies and very much it is the cultural evolution of the community members themselves that are opting to use or not use these systems and thus determine their futures.

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ENDNOTES

¹ "the definition I threw up there for currencies was talking about current-sees, first of all the ability to see currents, to see flows, the ability to see those different layers it's referring to that as a language of value ... what I am suggesting is that current-sees are social DNA. They are the way that we embody agreements for ... what we value and how we are gonna interact around that value" m19:19; "current-sees are the symbol systems to make flows at different levels visible" m20:25 (Brock, 2011).



III

THE POLITICS OF MONEY UTOPIAS: METHODOLOGICAL UTOPIAN EXPLORATIONS OF THE BANJAR AND THE NEOCRACY

by

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THE POLITICS OF MONEY UTOPIAS: METHODOLOGICAL UTOPIAN EXPLORATIONS OF THE BANJAR AND THE NEOCRACY

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ABSTRACT

Methodological utopianism is used to explore the potential of money via two examples, making use of simulacrum case study research. These examples are the Banjar, a traditional Balinese governance and currency system; and the Neocracy, a real cryptocurrency system. Both are considered through an integralist positioning with implications for practical utopianism and economic evaluation of community currency systems. Backgrounds on utopian studies, and money are given for contextualization of our approach. We take a heterodox economic position and use the “archaeological” approach of utopian thought.

The simulacrum case study is introduced as a tool to foster political imagination about possible monetary systems. While the Banjar system is embedded in the local cultural milieu, anthropological learning about existing money systems stimulates the skill to see possibilities here. The Neocracy is utopian in its aims and needs to be proved in praxis with more detailed aspects of implementation being unclear at present. Yet within it we do see a utopian potential which may be realised.

KEYWORDS

Simulacrum, community currency, ecological economics, social money institutions, spiritual money.

1. INTRODUCTION

Money has been around for millennia (Neiburger and Spohn 2007) and plays a key part in influencing a variety of economic relations. We can see the rise and fall of empires, feudalism, anarchist collectives and the emergence of modern nation states with their representative democracies which, as monetary communities, have all had their own ways of relating to each other (for pluralities and historical stages of money, see Weatherford 1997). Money in its physical form has changed too (Bátiz-Lazo and Efthymiou 2016). Diversity in currency continues within the digital world. Technology shapes us but we also shape and purpose that technology.

Here we explore two monetary systems to facilitate the imagination of alternatives to current money systems. Firstly, a traditional community of use, the Banjar system in Bali, labelled as a time and money dual currency system by Lietaer and DeMeulenaere (2003). Secondly, we look at the cryptocurrency Neco and its related currency called Karma. We look at both, not merely as they actually are, but how they are believed to be, thus as a simulacrum.

These help us answer the research question: How can methodological utopianism be used in praxis?

2. BACKGROUND

2.1 Money as a social institution

Money is seen in some theories as essentially “neutral” particularly those from the Austrian school (Hayek 1931; Salerno, Dorobat and Israel 2020), and monetarism (Friedman 1974). This means seeing money merely as a means of exchange, and a measure and store of value. Limiting money to these functions, neutral money theory sees real prices as independent of the money supply; thereby additional money in circulation can only inflate prices, as the same production and exchange takes place whatever the nominal prices.

While this view appears to resonate with common sense, at least to some extent, it has been legitimately questioned by many theories approaching money as a political institution. This means not only emphasizing that money should not be confused with its representational form, but more generally seeing it as a central institution in the economy, rather than a tool which comes to use only when existing goods need to be exchanged. This point is often made by Keynesians: money does not emerge as a convenient alternative to barter, but must exist before any production for sale can begin (e.g. Wood 1982). Economic sociology pushes this approach even further, noting the functions of money can include using power (Ingham 2004) and social transformation (Iansiti and Lakhani [2017] 2019), as purposefully constructed monetary systems can be used to bring about change in economic and social relations and institutions.

Taking this social scientific approach as a starting point, our focus turns from the exchange functions of money to the community of use. Such a community eventually decides, what kind of money will be generally accepted, who is legitimately mandated to issue it, and how decisions are made over the “price” of money and the terms of its circulation. Where and how can money circulate? What kind of value does it reflect? As decisions are involved, so are questions of democracy and power, and while the specific form or power associated with money is currently conducted through banks and states (Auvinen 2010), this power could take different kinds of institutional bases and is open to contestation.

Focusing on the community of use also emphasizes the temporal and cultural context in which a money is used, making it important to avoid excess “ontologisation”. Indeed, the ontology of money is framed in this approach as a question about how a particular community or individual conceptualizes the domain of money (Lawson 2015:23-24), instead of trying to locate money’s ahistorical essence. Money is then theorized as an “institutional fact”, in other words an entity that only exists due to collective beliefs about its existence.

The existence of money thereby means that there is collective trust that the given material or symbolic object designated to function as money will continue to be accepted as a means of payment by the members of its monetary community (Searle 2001:17). Sandler (2012) notes the need for such collective acceptance makes money a “commons we all share”.

This highlights the question of the acceptance of money. In Hyman Minsky’s (1986:228) words, “anyone can create money; the problem is to get it accepted”. Various kinds of tokens can be easily produced, but for them to be money,

they must be generally accepted; this creates a need to understand the social process behind this acceptance. With government monies, governments ensure acceptance by imposing tax liabilities in that money: thus money will be desired to clear tax obligations (Wray 2015). For a non-state money other means must be used to create acceptance and thus a community of users, (Bell 2001; Wray 2015).

There is an emerging literature in social sciences on the social aspects of money, which to some degree touches upon complementary currencies (e.g. Amato and Fantacci 2020; Bindewald and Steed 2015; Seyfang and Longhurst 2013). An integral part of the discourse on the politics of money, complementary currencies are purposively introduced to localize and stabilize the economy, and to reflect some key values or identities of a monetary community.

The form of monetary institutions is then expected to have social effects, not only effects on buying decisions or (re)distribution of money. Purchasing is a political practice (on this transactional economics, see Mulligan 2006; Maniates 2001; Fresco 2002; Pedrini and Ferri 2014; Ascani and Martino 2017; Sinclair 2000; Klasa et al. 2018; Seyfang and Longhurst 2013). Furthermore, complementary currencies are sometimes seen to better reflect the value of goods (as distinct from the price of goods), as their value system recognizes local and community values. However, some scholars see localization and diversity as possibly reflected in transactions also connecting to broad national symbolic meanings and institutions through mainstream money. Seen this way, uniformity and diversity are not in contradiction. Rather, they can be seen as two aspects of the same transaction (Zelizer 2000:386).

2.2 Money and utopia

As money has political aspects, by implication it can be used on purpose as a tool in political transformation. When money is seen as essentially political, and the emergence of various projects for social change through new monetary systems is noted, the question arises: What are the limits of using monetary design in social transformation? If the function (in the sense of functionality or purpose of money) and essence of money can, to some extent, change during capitalist development (e.g. a claim made by Marx (1890) that through a commodification process gold became the “money commodity” (Marx 1890:75) which is entwined with social relations and thus social and essential transformations), then to what extent could they change in an intentional political process? This question leads the analysis to the issue of utopia: Is money bound to be a means, or does the notion “utopian money” make sense? And if so: What would be the means of conceiving such utopian money? In methodological terms: What tools can be used in experimenting with the utopian possibilities of money?

Utopian prospects from money are constrained not only by general conservatism, but also by ontologisation. If the essence of money is seen as fixed, impulses to seek utopian prospects with monetary design are surely limited. But there is little reason to assume the social relations underlying money should take the same form and functions through time and space; it is a fallacy to think of what-is as what-has-to-be (Milojević 2021; Lubik and Surico 2010). In the words of timebanking pioneer Edgar Cahn, the current monetary system builds a “prison” for our imagination by shaping “our sense of what is possible” (in Lietaer 2001:146). Only the need to have an accounting system of some sort, sets limits to what can be done with money (see *Monetary Plurality in Local, Regional and Global Economies* edited by Gómez 2019 on pluralities).

Not restricted to community currencies, political initiatives around money abound (e.g. Allen et al. 2018 on institutional cryptoeconomics). Some reformers argue that money should be credited directly to individuals, on an equal basis, regardless of one’s position of property, security or credit-worthiness (Auvinen 2008:209; Bell 2001:149). Mellor (2015) argues, that as the control of the creation and circulation of money is essentially a question of power, and for her, a commons perspective (Meyer and Hudon 2019; Wall 2017; Mellor 2015) is needed to promote a democratic approach to money. The “positive money” approach is based on the monetary policy idea of preventing banks from creating new money (Jackson and Dyson 2012; Dyson et al. 2016). Finally, timebanks add an element of social change (Gregory 2015; Seyfang 2004), and a transformative conception of value (Eskelinen 2020a) to the discourse of money design.

Talking about the utopian prospects of money does not imply seeking a particular utopian society via the means of money design. Utopian thought can be interpreted in the methodological sense (Eskelinen 2020b; Levitas 2013). This means a shift from seeing utopias as “blueprints of society”, no longer needed or desired in the post-modern society (Fukayama 1989; Habermas 1986; Kumar 1987; Gray 2007) to seeing them as tools of social criticism.

This tradition of utopian thought emphasizes the capacities and tools for departing from what exists, with imaginative skills. Utopias have been interpreted as ‘social dreaming’ (Sargent 2006), ‘the principle of Hope’ (Bloch [1954] 1986), and a mentality that ‘breaks the bonds of the existing order’ (Mannheim [1936] 2015:173). In Levitas’ ([1990] 2010:8) words, utopias express the ‘desire for a better way of being and living’. Frank E. Manuel and Fritzie P. Manuel (1979:5) called this desire the ‘utopian propensity’ which has manifested itself in diverse forms of human experience throughout the history of mankind. According to Vincent Geoghegan (2008:17), “a utopian impulse or mentality [...] is grounded in the human capacity, and need, for fantasy”. Key classical utopias, Plato’s ([360 B.C.] 1994) *The Republic* and More’s ([1516] 2014) *Utopia*, even if appearing exactly as blueprints or prototypes of a future society, can be interpreted as tools for imagination and criticism.

Sometimes utopias are theorized with the notion of utopian practice. This means utopian ideas are not detached from practice, but utopias can be developed within practical projects and initiatives (Wright 2010; Lakkala 2020). This implies that micropolitical projects such as complementary currencies could be seen as practices within which utopian ideas are not only implemented, but also further developed. As utopia is defined as “a mental counterpart to the social movement for radical change in the world” (Kołakowski 1968:69), we can equally ask, what are such movements like.

The utopian potential of money is more clearly visible when we turn our attention from natural communities to intentional communities. Intentional communities or communities of purpose are created on ethical, political etc. grounds, and are thereby natural spaces for utopian experiments, including monetary experiments, in addition to their usual aims of local economic development (e.g. North 1999; 2002).

While such communities have sometimes been seen in the Polanyian sense (Polanyi [1944] 2001) as “counterweights” to global capitalism (e.g. Pacione 1999), often they involve a unique idea of what money and community could be. A renowned example of this can be found in the 19th century experiments of Robert Owen (Blanc 2006; Hollow 2016) where he created “labour notes” and worked to create cooperative communities. Today timebanks (Cahn and Rowe 1992) or other schemes (North 2007; Petz 2020) have a lesser transformative aim.

So, having noted the social and political nature of money and the methodological interpretation of utopias via utopian imagination and utopian practice, we can proceed to ask: What kinds of methods can be used to imagine, what money could be?

3. RESEARCH AIMS, DATA AND METHODS

3.1 *Research aims*

Firstly, we wanted to explore some monetary systems of relevance to community currency praxis; with a desire to move beyond simple, descriptive, exploratory research toward enabling an action-oriented approach. Secondly, we wanted to extend methodological utopianism to socio-economic research.

Heterodox economics, an umbrella term which means basically not “neoclassical” mainstream economics, embraces institutional, Austrian, ecological and more recently peasant, happiness / welfare economics amongst others (e.g. integral (Lessem and Schieffer 2010), feminist) and ways we can position our divergent praxes. Divergence is needed due to deficiencies in current practice (Arnsperger and Varoufakis 2006; Keen 2011; Lawson and Morgan 2021), which leans on economic modeling based on the idea of independent actors. The aggregation of ‘rational’ actors is the reality mediated by mainstream economic thought.

A concrete bad practice example is the General Equilibrium Theory acting as a model. The General Equilibrium Model (Dixon et al. 1992) is not just an abstract model of the entire economy, it is being transferred from thought experiment into reality by praxis and has become a self-fulfilling prophecy / propensity. Invested with agency by economists it alters their way of thinking and those that follow their beliefs.

Methodological utopianism allows us to depart from the mainstream (the neoclassical economic hegemonic dogma) and take more of a communitarian approach like we see within the Neco and the Banjar systems, which here are described in terms of social relations.

3.2 *Data*

Case identification was done by looking at various community currency possibilities with utopian aspects. These were discovered through people in our networks, internet searches, literature around community currencies and participation in several online fora.

For the case study on the Banjar, the publications of Lietaer were consulted. They were supplemented by some other literature, although a weakness is that we only consulted literature in English and did not talk with anyone with lived experience in a Banjar (see 5.1 Framing of analysis for a discussion around this).

Cryptocurrency creators conventionally publish their technical details in a pseudo-academic style called a white paper (Graham 2013). We made use of the Neco white paper (Goette 2020a), and Stackchain Lite White paper (Goette 2021) as a source of data. Additionally, notes from The Neco Video Conference webinar (Goette 2020b), social media research and research interview (Goette1), WhatsApp chats (phone-based chat application) and emails from the principal informant were gathered. Subsequent documentary and interview data was then organized thematically and heavily abridged. It was supplemented by exploration of the literature and gray literature.

3.3 Methods

3.3.1 Simulacrum case study research

We use case study research in the investigation. However, we depart from the conventional ontological starting point (e.g. Yin 2018) in allowing for case study research to be applied more widely, with the unit of enquiry being a simulacrum. Others e.g. Marx (Cunningham 2016); Weber (1949; [1921] 1978); Thacher (2006); Lincoln et al. (2018); Mills et al. (2010) prompt us to see it as a viable mode of enquiry.

We take an integral, which means “integral” insofar as it serves to harmonize nature and culture, society and economy” (Lessem et al. 2016:1) not a “postmodern atomization” (Berry 1999:589) position as we do this. Post-modernist positioning, as seen in Jean Baudrillard’s concept of his simulacrum (1981), means that he regards the atomized simulacrum as separate and an item on its own.

Our simulacrum is intimately connected with a futurist utopian reality. We integrate the past and simulacrum and future (albeit utopian) in our methodological utopianism approach. We are acting conceptually, and this could be described as constructivist, yet with an imaginative element taken from a design science or artistic research view of the world (Borgdorff 2009) as part of this approach.

It is important that the cases considered contain an element of potential futurism. In our case we use Levitas’ “archaeological mode” for revealing what in the past has this potential. So our case study must include real case(s) which follow an arc of time. There will be within each case: a past, of what has happened and may indicate the origins of what is to come; and a present, which, despite the name, is largely the perception of how things were in the recent past, making an extendable now of how things generally are; and an interpreted (by us) utopian, futurist element, which is how we project the arc of time will develop, based on the original conditions and how they have manifested in the present. These 3 linked elements: past-present-future together make up a triptych in which all parts are required.

For Yin (2018) the definition of a case is crucial. It is a real-world phenomenon and thus described with a thick or thin description. There is debate about how thick a description is needed, what properly researched means, and if a case is adequately presented for a case to be considered scientifically valid. When there is enough data, to carry out case study research on, additional important aspects to be considered include: defining the unit of analysis; selecting the individual techniques and tools for qualitative, quantitative, and mixed method research, which will allow enough triangulation for validity; and deeper epistemological questions around research itself. Yin (2018:318) writes “research case studies must adhere to formal methodological procedures, linking all findings to explicit evidence, as well as offering (research-based) findings and conclusions”. Similarly, we regard a real-world phenomenon as an essential foundation.

3.3.2 Methodological utopianism and the archaeological mode

The analysis of utopias has traditionally meant literary studies of imaginary societies as conceived by individual authors. To gain a utopian perspective we read about utopian and dystopian ideas by selecting different categories

of utopia within the genre of utopian thought. Practically this consisted of selecting based on the idea of Reception Theory (note the danger of historical fallacies in doing this e.g. historicism (Strauß [1949] 1965; Popper [1957] 2002), as in, we created our own interpretations and meanings based on our prior experiences and exposures (see Holub (1984) on Reception Theory). Historically utopias have been explored through descriptive books or series of texts such as Aristotle's "best city" in his *Politics* ([350 B.C.] 2013), and Spence's fantasy isle of [...] Spensonia: A Country in Fairyland Situated Between Utopia and Oceana ([1801] 1982).

More modern authors have considered utopias in this vein too. H.G. Wells' ([1905] 2018) *A Modern Utopia* discourses on other utopias and spawned several modernist dystopian parodies, notably *1984* (Orwell [1949] 2014) and *Brave New World* (Huxley [1932] 2006). This literary tradition, of the analytical proposition of utopias and dystopias with fact-fiction juxtaposition, continues with more recently: Max Tegmark's (2017) *Life 3.0* (which explores both dystopias and utopias) and its digital utopia within *The Tale of The Omega Team* (ibid.); and *Economic Science Fictions* (Davies 2018).

As a discipline, utopias are studied via utopian studies, and there are journals and authors writing in that context (e.g. Hollow (2016) on utopian cashless societies) or even practical anarchism (see Lakkala 2021). However, media have expanded beyond text, and film, anime and a wider range of media can be used. This is how we conceived of works within the utopian-dystopian genre.

As we are interested in social relations, money relations and political economy there is quite a wide range of perspectives we could take and apply. For example a focused literature review of previous utopian monies and economies would be a useful endeavour, yet is out of scope of this paper. Our interaction with the project *Utopia metodina* (Moisio 2019) allowed us to gain wider knowledge about the scope of the genre of utopian studies, and then we could derive from this a broader perspective to construct a simulacrum case study.

This literary studies methodology (commonly found within utopian studies) is still practiced as "historically oriented text analysis in which different utopian texts are read from the perspective of historically variable functions of utopia" (Lakkala 2021:42). Yet the concept of utopia has evolved from an object of research to a method of research. This approach was developed particularly by Ruth Levitas (2013). To facilitate the understanding of utopia as method, Levitas distinguishes three forms utopian thought can take: the architectural, archeological, and ontological.

The architectural mode refers to utopias in the classic sense. This means detailed images of the design of a better and desired society: "imagining a reconstructed world and describing its social institutions" (Levitas 2013:197). The archeological mode, in contrast, sees utopia not as images of a non-existing social reality, but as a quality of existing social institutions (see Morgan 2019 for use of archaeology for ruptures in thought and practice of past and present people). Understood this way, anything that expresses an orientation or a desire towards a qualitatively better mode of being, can be perceived as utopian (Levitas [1990] 2010). Utopian elements exist in many social practices seen as pragmatic or given in the current social order.

The methodological challenge is then to shed light on these utopian elements, as they are not directly visible to us. Thus "archeological": the utopian elements can be hidden out of sight in layers underneath the visible part of these practices. The idea comes close to the notion that "radical" derives etymologically from "in the roots", implying that understanding the roots of ideas and practices of today opens avenues for societal change.

So a possible research approach can be to analyse commonplace ideas and practice to ask: Could they inform hope of radical transformation, despite being diluted, compromised, and constrained in the process of their institutionalization? This thinking comes close to the so called "utopian hermeneutics" (Bloch 1986; Jameson 1979). Especially in Bloch's *The Principle of Hope* (1986), utopian archeology (or utopian hermeneutics) finds utopian ideas from many texts and institutions.

In terms of concrete research methodology, utopian elements can be sought in political programmes and social and economic policies (Levitas 2013:153). Research then means an analysis of these programmes and policies to see the utopian element: what kind of hope and dreams are embedded in the political thinking in question, what kinds of historical ideas for societal change are layered under what has become mainstream policy, etc. Methodological

utopianism can also mean attempts to dissect the utopian from the conservative in a particular policy or institution (e.g. Eskelinen 2021).

Lastly, the ontological mode of utopian methods entails imagining ourselves otherwise, as human beings and as societies. This also means normative judgments about what constitutes human flourishing. The key point of the ontological mode of utopian method “is that the utopian method necessarily involves claims about who we are and who we might and should be” (Levitas 2013:196). So we can see a methodological continuum between the archeological and ontological modes. Once we have located utopian elements, or expressions of hope (Bloch 1986) in various practices and institutions around us, we can pose questions about what these expressions of hope tell us about human flourishing. In this manner, existing practices can have such an ontological quality, if the ‘archeological’ analysis is carried out first.

4. PRESENTATION OF CASES

4.1 Banjar dual currency system

Bali is an island with a population around 4.3 million. In recent centuries Bali’s royal caste was eliminated by the effects of Dutch colonialism. However, religious and cultural traditions continue to function to the extent that they have been co-opted into the institutional apparatus of the Indonesian republic. Of particular interest to us is the banjar and the currency system which it runs by.

Since 1979 the banjar has been the lowest level of local government (FLC 2016). It is analogous to a parochial parish council (religious administration) together with a parish council (secular administration). The banjar is similar to a parish in being both a geographical area and a system of governance. It can be a whole village, a street, or even several houses analogous to a residents’ association. Banjars deal with adat (which concerns customary Balinese law and religious practices) and dinas (administering government bureaucracy). Banjars have existed over a millennium and, given their large number, undoubtedly varied over these dimensions.

Individual roles and responsibilities vary; additionally accounting for personal characteristics such as wealth and health. The range of traditional activities has widened, to include more touristic activities and even road or school construction (Lietaer and DeMeulenaere 2003) if the krama (the banjar council, comprised of one member from each banjar family) (Lietaer and Dunne 2013) so decide.

The banjar system functions via a monthly or occasionally special meeting being called by beating the kulkul (slit-log drum). The banjar members then come to the bale banjar (banjar hall) where new projects are proposed, and business around existing ones transacted. The “contributions of time and money are decided upon” all done according to that banjar’s awig-awig (regulations). Lietaer and DeMeulenaere (2003) describe this “Integral Economy framework” working like this:

“On the average, each Banjar starts between seven and ten different projects every month, big and small. And for each project, the expected contributions of each family unit – in Rupiah and in time – are taken into account. In the poorer Banjars, the Rupiah constraint is typically the more binding, while in the richer ones the opposite may happen.

In most cases, there is no problem finding enough people to contribute the time needed to complete an activity, and thus contributions of Time are not recorded. In some Banjars, however, where there is a scarcity in the contribution of Time or when there are complaints from some members about the lack of contribution by others, the Klian Banjar [chairman] records every contribution of Time. Those who cannot contribute their share of Time are asked to send a substitute person. In case either one is really impossible, then they must pay a charge of between 5,000 and 10,000 Rupiah (.50 to 1.00 US Dollar) for each time block missed. Such substitutability is only partial and conditional [...]

The more organized Banjars in Ubud like Banjar Sambahan make the amount of Rupiah of such substitution cost a formal decision at the initiation of each project - when it is felt that everybody’s physical presence is deemed important the substitution cost is placed higher than for other projects where that is less the case.

Our interviewees are quite clear that: “Time is a form of money.” The majority even make the point that “Time is more important than Rupiah” for keeping the community cooperation strong in the Banjar.”

According to Lietaer (2003) both time and money are required in different proportions within the banjar system. They act as a dyad and so are not substitutable nor removable without the system collapsing. In fact, the range of social relations depends on both time and money being used with participative democracy. Attempts to force communal labor or banjar work on people without this democratic element have met with failure due to non-participation.

Lietaer and DeMeulenaere (2003) call this “a dual currency system” of “two currencies” the “first [...] the Rupiah, the conventional national Indonesian currency” and “The second one is “Nayahan Banjar” roughly translatable as “work for the common good of the banjar”. It is a time services currency, as the typical unit of account of Nayahan is a block of time of approximately 3 hours of work in the morning, afternoon or evening.” They report (ibid.) that “A more philosophically inclined Banjar leader, although obviously a Hindu, used a Taoist vocabulary of complementarity to describe the dual currency system as being in a “Yin-Yang relationship”.

We could conceive of the system as being like a fruit-cake with currants (rupiah) and cake mix (time) blended together and not separable, than some kind of icing on top of a cake. Similarly, the various elements of Balinese culture are blended. Lietaer and DeMeulenaere (2003) do acknowledge this when writing, “there are no terms in the Balinese language to describe concepts like “culture” or “art”. The Balinese terms always refer to a specific activity as inseparable from its context. For instance, there are no words to distinguish a “dance”, from “dancer”, or “theatrical performance”.” So, presumably, the same applies to banjar activities.

The above description shows how the Banjar has recently manifested, but historical records show that the function of the physical forms of money can also change. Chinese cash coins, known as uang kepeng or locally as pis bolong are used locally in many rituals (Raka et al. 2020). These spiritual coins were previously used in the Banjar (Raka et al. 2020), but since the 1950s have largely been replaced with rupiah (Lietaer and Dunne 2013) – the Indonesian national currency by law. Chinese Cash Coins are used now only for ritual purposes, mainly as copies, or in statues for tourists (Supir, Sadia and Muderawan 2019).

4.2 *The Neocracy*

Within the cryptocurrency community is a strong activist streak (Wingreen et al. 2020; Chohan 2018), and a range of different “blockchain technologies for social and environmental impact” (PositiveBlockchain.io 2020). While most lack the concept of forming a different economic system, a cryptocurrency called Neco was deliberately set-up to create a new political economy called the Neocracy; in which the Neco is linked to a second token called Karma via a governance mechanism called Collexa.

The Collexa process currently works by an email sent to those holding Neco tokens. Holders can then vote in proportion to their wealth about how the distribution of spending will be allocated – “the Neco regulation” (Goette 2020a:22). How much goes to a reserve, how much goes to carbon related projects, and how much is given as profits to holders of Neco. There are some limitations on this, so voters cannot destroy the system by giving all tokens as profits. The plan is to extend this regular polling to further decisions to build the Neocracy. If the Collexa works as a governance mechanism, and it can be modified, to bring in liquid democracy elements for example, it will be offered to other organizations for their own governance as a service.

The Neco, and system of governance was designed by Florian Goette, a serial tech entrepreneur (Goette1). This system gives him some veto powers, but effectively hands over Neco management to the association Neco Finance e.V. (Goette1).

His motivation for creating the Neco is to deal with the great transformation we are faced with due to anthropogenic climate change and ecological destruction. “Neco has introduced the Carbon Freetax, a voluntary, tax-deductible carbon offset program for individuals and companies. The Carbon Freetax is collected in fiat currency, added to the Neco Reserve and converted into Neco tokens” (Goette 2020a:11).

The way Neco Finance runs is “based on Holacracy” (13)¹, (for Holacracy explained see Rau 2020) described as “the Neocracy, a decentralized collective organization (DCO)” (12). “The Neocracy is built upon the democratic cooperative business model rather than the capitalistic shareholder model” (Goette 2020a:12). So, members are involved in aspects of decision making the aim “Increased efficiency, transparency” (13) and participation under the idea of consent rather than consensus, which is fundamental to Holacracy. This should lead to a “Distribution of authority instead of concentration of power at the top of the organization” (13). Solidarity is one of Neco’s core values, meaning the “Neocracy is built upon the cooperative principles of self-help, self-responsibility, and self-management” (Goette et al. 2020:7).

The Neco is currently in the “prototype” (Goette 2020b) or “proof-of-concept” (Goette 2020a:25) phase. Initial funding has come from investors, some Bavarian state start-up funding and in the future “three Initial Coin Offerings [ICOs are planned]” (25). This is quite analogous to how a start-up is funded with different rounds, called “[equity] Crowdfunding” rounds (25) and the “roadmap” of development looks like a Start-up’s A, B, C series funding (Reiff 2020).

There are around 200 users (Goette1). Getting Neco requires a payment in fiat currency, which is converted into a reserve. Potential other assets, which fit with the collectivist philosophy of the Neco, are to be used too: property in land; and common pool goods, like cars which can be rentable for payment in Neco. Transactions of Neco will be instant and electronic, there is no physical Neco. It is general-purpose money, money that can be used to buy anything. Additionally the Neocracy includes (see Goette 2020a: 8.1 Token overview) Globe, a sustainable consumption rewards token; Karma, a positive action rewards token; Collexa, for polls or surveys, and the Stackchain which are both utility tokens (ibid.:21).

The Neco is aimed at the urban - “It is the cities where can grow faster as there is a higher density of potential users than rural areas” (Goette1) - middle classes who match the Lifestyles Of Health And Sustainability market segment (Szakály et al. 2015). They are generally “a relatively upscale and well-educated population [...which...] represents about 10-15% of the population in the developed countries (Goette 2020a:27).”

At the business level Neco Finance follows the concept of “a positive triple bottom line (TBL) by generating profits for our users, providing universal basic income (UBI) and protecting the climate. Our primary goal is to increase the happiness of our user community” (3). This is in line with the triple bottom line, as created by Elkington, “a management framework that examines a company’s social, environment, and economic impact” (Elkington 2020:30).

5. ANALYSIS

5.1 Framing of analysis

The epistemological question around how we approach case studies as a tool in our methodological utopianism portfolio relies on if this is a priori knowledge, which we gain from seeing the system conceptually; or a posteriori knowledge gained mostly from experiential learning.

In our analysis we, being without direct experience, are distanced (we do not live in a Bali banjar, and relied on historical texts and webscrapes) in regard to our knowledge of the Banjar system. This is a scholarly armchair anthropological mode of learning (Sera-Shriar 2013), rather than a lived reality carried out under field-work. Nevertheless such analysis is instructive for us, even if we do not necessarily adopt the codes as used in praxis.

Lietaer and Dunne (2013:190) partly recognized this distance when writing, “To romanticize the Balinese experience would be a mistake, but to dismiss its many teachings out of hand would be one, too.” We should remember texts from westerners may exhibit elements of orientalism which exoticize and other Bali and the banjar; “the dynamic between scholarship and imaginative writing” (Said [1978] 2003:24) is not always explicit. The point here is that even though ideas about exotic areas can be misleading, romanticized, etc., they can nevertheless be stimulating to our political imagination.

Similarly, there is a distance in our analysis of the Neco. We considered the Neocracy system via current documentation, and while it is only in the prototype phase. We were able to engage to some extent in experiential learning only in the sense of observing the culture in action around the Neco founder. Nevertheless, we can explore its possibility as a real-life example of a cryptocurrency economy. This provides us with tools for analysing the utopian

potential of money. We conceive the Neco as part of the positive blockchain movement. “PositiveBlockchain [(PB)] projects are initiatives from startup, corporates, government or non-profit organization using blockchain and decentralized technologies as tools to create a positive impact and solve social or environmental issues. What all PB projects share in common is the aim to positively impact people’s life.” (PositiveBlockchain.io 2020).

We acknowledge that sometimes transformative projects lose their ideals and develop into commercial enterprises or executive management fails to run a project well. However, our aim here is not to speculate on the future of individual projects when faced with capitalist pressures, but to analyse their utopian potential. By looking at a specific real-life example we first construct a case study, we then draw conclusions about the generalized features of interest.

5.2 Banjar analysis

5.2.1 Meaning and political extent of money

The banjar is a real-life phenomenon. Yet as the Banjar system, comprising a money utopia, it is an imagined island (for enchanted isles as utopias see Mumford 1922). It acts somewhat as a black box or a mirror or mirage³ reflecting and projected upon by an exoticism looking for a utopia with different monetary values and institutions from the Western perspective. Does this external view hold up to scrutiny?

There are elements which do conform to this perspective, but a thicker description of the Banjar system revealed money and time were not the only factors interacting within the banjar black box. Additionally institutional factors, at least in contemporary society, had an impact on the success of this system. The patriarchal and obligatory nature of the Banjar system helps to make sure women are included in a certain way (women have roles they must fulfill as social obligations which intersect with the roles men must also fulfill, which are gendered in a patriarchal way, for a deeper discussion of this see Suyadnya (2009), men, and youths too. Everyone, even distant students, and foreigners, has their place in this feudally derived society (FLC 2016).

That the system has lasted so long, and in so many places, intimates that there are some other aspects that keep it functioning. These other currency flows are not adequately covered in such a thin description that works on the idea of neutral money.

We must probe the history of how the current Banjar system came about. The money used until the 1950s was not mainstream fiat money it was pis belong (Chinese cash coins). To understand the Banjar system we must describe their use then. While these coins are no longer used for trade, they continue to hold spiritual value and significance. They represent the underlying values and syncretic culture of Balinese society.

5.2.2 Revealing the utopian elements

The substitution possibilities with fiat currency and use of the Chinese cash coins show the banjar is only part of the money ecology in operation in that complex society. As cash coins have been replaced is the same going to happen with the time element of the banjar? Attempts to do this reveal at present that time is not fungible. Participation in person is a must. Social (collective) and human (via a specified individual) capitals is / are required.

The range of functions the banjar deals with has even been expanded - at least in an experimental sense. It can truly be engaging in a practical methodological utopianism. Are there lessons for other locations? Could it undergo technology transfer elsewhere? The religious and spiritual element in Bali’s syncretic society show this would not be an easy process. The complex, or rather intertwining of the different bodies benefiting from the Banjar system, show a simple transfer of 1 or 2 elements is not enough to make a system viable.

For a scheme to work-out this must be organically developed in some way. Iterative development, rather than implementation of a rigid Banjar plan, would be needed to take contextual factors into account for appropriate technology transfer. It is interesting that banjars vary in size and function in rural areas. This is on a small-scale, say a village-scale, but it can work, and it does work. Can we apply this system to existing communities? To do this we need to recognize the place of rice farming in the formation of the banjar. If we took similar agrarian societies, we could imagine this working in them too. This could be an intentional community, such as an ecovillage.

How do we define our community of use? If we can agree it is based on a community of place – what is the Nayahan Banjar “spent on”. Which projects? The range of religio-cultural activities could be substituted with other cultural activities. This kind of cultural development, an art intervention (see Jiao et al. 2020; Douglas 2005 for more on rural art interventions) was tried in Japan with festivals used to revitalize areas of population decline (see Government of Japan 2021; Sarale et al. 2020).

It could be used for ecological gain, or natural enhancement, such as forest restoration? Such projects are in addition to the mainstream economy which may be running in that society. Possibly, if forest restoration extended to self-sustaining lifestyles, this could replace the food system and lead to autonomy. However, it must be noted the other ingredients in the mix are important, not only where the time currency is spent.

5.3 Neocracy analysis

5.3.1 Meaning and political extent of money

The Neco ecosystem is transformative, meaning it “could change the very nature of economic, social, and political systems” (Iansiti and Lakhani [2017] 2019:105). By severely questioning the conventional welfare economics, which is based on the neoclassical synthesis (Bowles and Gintis 1993; Gowdy and Polimeni 2005:924; Yamagishi et al. 2014), reality is cracked for other possibilities to emerge.

Until now growing out of the cracks is not what cryptocurrencies, which rely on the blockchain, have done. Instead they have replicated the conventional aspects of the economic system as their framing and merely increased Pareto efficiency of the existing economy – doing the same old, same old – but better. This, albeit strong Pareto improvement, is not transformation, but effectively “substitution” (Iansiti and Lakhani [2017] 2019:104).

Some claim this process, of fiat currencies being replaced by cryptocurrencies, continues and will soon be manifesting in “sovereign digital coins” (Brown and Whittle 2020) controlled by “corporate entities” or “the right institutional environment, which is that of a sovereign entity and a central issuance authority” (Mersch 2019) like a nation state or supra-national body. Thus the “dream of universal people-powered monetary substitutes is being crushed by this unanticipated but in hindsight inevitable institutionalisation.” (Brown and Whittle 2020).

The Neco Platform differs significantly from other monies and neoclassical assumptions of economic rationality in that this is explicitly an economic system which proclaims its values and comes from happiness economics. Neco’s economic paradigm, described as the Community Happiness Index, “is based on the GNH [Gross National Happiness] – of Bhutan [...and is...] gonna measure the same 9 aspects” (Goette1). Here homo reciprocans is in the ascendant and users are reinforced in such behavior by transparency, karma rewards and levels.

The Neocracy is to replace money and money relations with a mutualistic way of relating. It is ultimately the utopian dream, of a non-monetary economy. The Karma tokens (a spiritual money) are earned for positive actions such as volunteering, and the system emphasizes a world beyond money. “Karma communities [are envisioned] where you cannot even use money, you receive services you want and provide services in return to live in karma not on money any more [...] It is a step-by-step transition. The process starts with very few until we completely get rid of money” (Goette1).

Initially it is proposed to fund evening classes and reforestation projects. It is likely this will extend to other things the tax system currently funds (see Goette 2020a: 6.2 Public Services) “such as education and healthcare” which “Like UBI, ... will be financed through Crowdfunding (money creation) rather than through taxation like in traditional systems”. Meaning that initially fiat money, which is raised becomes backing for more Neco tokens to be issued, though other backing may develop via the service obligation (services given) which then reciprocally give a service entitlement (services received). Service provision will be based on “the individual Karma level to determine the allowance per user” (ibid.:16).

Karma appears to offer a system of graduated membership, like a discount card with different tiers increasing the reward and incentivizing loyalty, while adding capital to the whole Neocracy system (see Stearns 2011 for an exploration of such cards). It is slightly unclear which actions will earn karma, how much and what that karma will bring. So far, the main proposed example was the free carbon tax. This is supposed to act for carbon offsetting, and the tax-money raised is used in a concrete way to support carbon reduction or carbon sequestration. This appears

to be linked to the ideas put forward around trading of carbon credits under the Kyoto Protocol (Gilbertson and Reyes 2009).

But what does the Karma holder gain from holding or increasing their Karma? They will gain in Karma level. Initial investors started on level 0 with a potential to reach level 10. At present karma brings a share of Universal Basic Income (currently paid in Neco if requested, contingent on special conditions preventing it being converted to fiat currency and lost from the system – though it can be spent), the rate is set through the Collexa process and according to the balance of 3 shares, namely one share of money in the reserve; one for ecological restoration; and one as UBI. This builds solidarity around those participating in the Neocracy as the richer support the poorer.

It appears Karma can shift time contribution wise so “We can give Karma to do classes and Karma can be gained from how many [people] you invited [to join the Neco scheme], so from inviting levels and it is not a given that those with the best education get it [(, that is the Karma the)] most. So people with low Karma can volunteer – they have to have willingness to contribute the more you give the more you get – to encourage people to give more to each other than just expecting people to give to them” (Goette1). A Neco Evangelist Karma token is under beta testing, earned for influencing others to invest in the Neco a minimum of 500 euro.

The Neocracy aims to spread an individualistic self-actualization culture e.g. “Karma is for real persons not for legal persons. So they cannot earn Karma. Only individuals” (Goette1). It will be voluntary, and this slightly paternal libertarian approach (Thaler and Sunstein 2021), through the community elements, will alter relationships between members. Not only money will flow more, but also reputational currency and communications. In some ways it is like a club or society.

5.3.2 Revealing the utopian elements

The Neco ecosystem is not relying on the blockchain. It uses the stackchain (for a technical explanation see Goette 2021: 2.1 System architecture), which is “using the Proof-of-Competence consensus algorithm. ... and introduces Data Sovereignty, the concept of property in and control of one's own data” (ibid.:2).

The stackchain can be weighted toward certain preferences (such as transparency, and transaction modification) and is bringing with it aspects of linked multiple tokenization (so more than one kind of token or money is generated by use) and smart contracts (not limited to simple financial accounting, but also value accounting (see Quilligan 2020) that allow with its transparency the implication of a more radical democracy, and values for social and even ecological aspects to be included in the economic system it is operating under.

The Neocracy is manifesting into reality the idealized relational actor, homo reciprocans. Karma levels within the Neocracy are effectively implementing this by those engaging in more investment (giving more money) to the Neco getting a higher karma level and consequently a greater amount of UBI when it is paid out in Neco (which has restricted convertibility to fiat currency and so spending the non-convertible Neco remnant totally supports the Neco economic actors).

When we think about living in a Neocracy (which is roughly the Neco tokens – acting analogous to a fiat currency and Karma – acting analogous to a spiritual currency) we would fundamentally change how we live. The transformation to a digital utopia is covered in the novel *The Circle* (Eggers 2013) – where a tech company gradually takes over every facet of its users' lives. This is what the Neocracy aims to do. It plans to bring decision-making into its Collexa democracy; projects will be supported by its decisions. Participants can no longer be excluded from the political economy; they can participate in deciding how the economy functions. They will also be getting UBI and so rewarded by participation – it is in their self-interest to be active and not passive.

It is this transformative aspect that encapsulates cultural evolution, transformative education, and nudge economics (Berg and Davidson 2017; Thaler and Sunstein 2021) which when taken together is truly revolutionary and elevates the Neco-Karma system above a complementary currency or a parallel currency which accepts the status quo. By taking part in Neocracy, accepting UBI in Neco, then spending this for Globes while conscious of Karma, individuals, and the communities of use they make up, will start to live a different reality.

This hope is even explicitly stated in the Whitepaper “Our objective is to create a better future for all living beings on Earth. We believe that the major issues of our times are either caused by the financial system, or could be solved

by a better one. Instead of trying to fix the existing system, we have designed a new, sustainable system that supports the PPP principle - people, planet, and profit. We have created a stable currency to provide the funding for global solutions to our ecological, social, and economic problems. And we have set up a decentralized collective organization to manage this system intelligently and democratically" (Goette 2020a:3).

6. CONCLUSIONS

To create a utopia, people must experience living it – called “utopian practice” (Lakkala 2020; Holloway 2010). (On researchers and citizen scientists operationalizing utopian practice via critical utopian action research, see Egmore et al. 2020). If implementation is considered, there is merit in the Weberian ideal of eliminating the “unachievable and practically meaningless” (Turner 2000:17), at least to the extent of refocusing towards a practical utopianism in an intentional community prior to wider implementation.

We should be cautious with the notion of implementation. The dominant approach is to see utopias as blueprints, and thus focus on implementation, e.g. the nirvana approach which contrasts idealized perfection with existing forms rather than a “comparative institution approach” which looks at existing “alternative real institutional arrangements” (Demsetz 1969). Within utopian studies “utopia as methodology” approaches the topic as the search for utopian elements in existing practices, sometimes known as “the archeological mode”.

We posit a rapid and accessible method of doing that is simulacrum case study research. It may be that on reading our paper that the reader is left frustrated that we do not give a satisfactorily thick account here. However, the aim here was not to give an exhaustive (and potentially exhausting) worked example, but rather to indicate a viable utopian methodology which can be further developed and applied. Nevertheless, we are conscious a deeper / thicker analysis would be possible as a more ethnographic enquiry.

Our use of methodological utopianism has helped us look into the Banjar system. Following the “archaeological mode” of utopian studies, we then evaluated the utopian potentials of the Banjar system. We concluded that the Banjar simulacrum cannot simply undergo technology transfer. As most technologies need some adaptation to social context, simple transferability is not really the key point.

The conclusion is rather related to what kinds of visions, or ideas about the political extent of money, studying the Banjar can inspire. We identified liminal situations where aspects could be applied: in intentional communities, festival spaces, and in rural art interventions. Here there is an opportunity to move from the habitual situation toward a new world, as an initiative is supported with time and whole community participation.

Our description of the Neco and how it is envisioned reveals an aspired / planned for future. Here we can archaeologically uncover the utopian which goes beyond the real. As outlined above, the Neocracy is based on homo reciprocans, a problematic utopian concept of individualism even when idealized (Arnsperger and Varoufakis 2006). Furthermore the long-term sustainability of the Neocracy can be questioned. Yet the utopian element of a community functioning on happiness economics can be seen. A new community which works on a different, more communitarian economic logic can thus be read in the subtext.

The features present (technical innovation, targeted marketing, funding strategy) or absent (concrete adoption strategy, business usage case) for that future allows us to wonder about the Neocracy’s chances in the market of positive blockchain currencies. This competitive market is analogous to that faced by all too many community currencies which are often outcompeted by monetary alternatives.

Are practitioners within such circles also aiming to implement a utopian dream? Fundamentally, only a lived reality can answer this question of viability. The Neocracy is in the process of doing this, having progressed from a concept to a prototype. And now as a working economic project, as of yet with a limited community of use. Whether it will be as long lasting and flexible as the Banjar multicurrency system is a moot point. Nevertheless our methodological utopianism can help you identify its integral elements of utopian propensity, which goes beyond the utopian practice of today.

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ENDNOTES

1. Research Interview: Goette, Florian. 2 Dec. 2020 via WhatsApp and phone.

2. How close these systems are to Holacracy, which is a special form of Sociocracy is debatable. In the case of the Banjar the idea appears in what seems a throwaway line from Lietaer and Dunne (2013), as it is not justified. In the case of the Neocracy, it appears that Holacracy was something of a fashionable way that many start-ups have begun

to operate, though maintaining that way of operating under institutional pressures has meant it is often subverted in form.

3. In Baudrillard's (1981:17) conception of a simulacrum, reality is irrelevant and non-existent, especially in the acme of his 4-stage conception (from reflection-mask-enchancement-simulacrum), his simulacrum of a constructed reality that is no reality.



IV

NOMADTOWN, MANIFESTING THE GLOBAL VILLAGE HYPOTHESIS: A CASE STUDY OF A RURAL RESILIENCE HUB WITHIN AN EDUCATIONAL MILIEU IN NORTH KARELIA, FINLAND

by

Marcus Petz, 10 April 2022

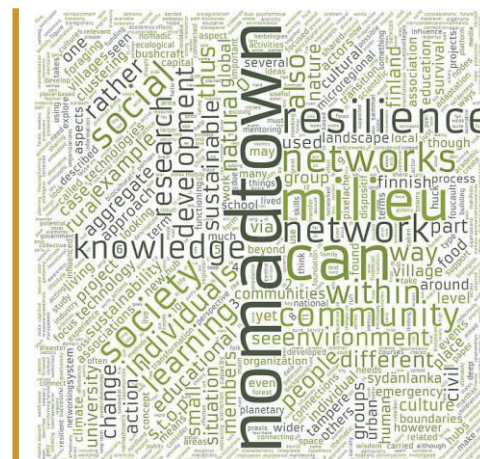
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NOMADTOWN, MANIFESTING THE GLOBAL VILLAGE HYPOTHESIS: A CASE STUDY OF A RURAL RESILIENCE HUB WITHIN AN EDUCATIONAL MILIEU IN NORTH KARELIA, FINLAND

Marcus Petz¹



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Abstract: NomadTown a resilience hub based on learning for emergency prevention, positive impact creation, and adaptation is presented. The educative background of the sub-culture found there are outlined. A thick description of the educational milieu NomadTown is situated in is given. A contextualization of this milieu is provided with a Foucauldian awareness of the dispositif (apparatus). Whether the social ecology of associations, this resilience hub is becoming embedded in, is a suitable way to make the great transition needed to deal with climate change; and how organizational learning, manifesting as network learning, is taking place are considered. Such functioning connections are embodying the networked village concept of Nahrada’s Global Village Hypothesis. I conclude that working through connected networks, in NomadTown’s educational milieu, is an effective way to make change for resilience in our human survival situation when faced with climate change. However, NomadTown needs better connections to industry and government.

Keywords: ecoliteracy, wilderness guiding, wild pedagogy, forest schooling, prepping, network theory, ecocentrism, Global Village

Abstrakti: Artikkelissa esitellään NomadTown, joka on hätätilojen ennakointiin, torjuntaan ja sopeutumiseen sekä myönteisten vaikutusten tuottamiseen toimintansa perustava “resilienssihubi”. Artikkelissa hahmotellaan NomadTowniin kehittyneen alakulttuurin koulutuksellista taustaa ja tehdään syvälinen kuvaus NomadTownia ympäröivästä yhteiskunnasta oppimisen paikkana. Tämä kontekstuaalisointi nojaa tietoisuuteen dispositiivista Foucault’n tarkoittamassa mielessä. Tekstissä arvioidaan yhdistysten yhteiskuntaekologian, jonka puitteisiin tämä resilienssikeskus on asettumassa, soveltuvuutta ilmastonmuutoksen torjunnan edellyttämään suureen yhteiskunnalliseen transiitioon. Lisäksi arvioidaan kuinka verkostomainen organisaatioissa oppiminen NomadTownin puitteissa tapahtuu. Tällaiset toimivat yhteydet ilmentävät Nahradan maailmankylähypoteesiin

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kuuluvaa verkostoituneiden kylien käsitettä. Tutkimuksen loppupäätelmänä on, että toiminta yhdistyneiden verkoston kautta NomadTownin koulutusympäristössä on tehokas tapa muuttaa yhteisöä resilienssimmäksi ilmastonmuutokseen valmistautuessa, joskin NomadTown tarvitsee parempia yhteyksiä liike-elämään ja hallintoon.

Avainsanat: Ekolukutaito, eräopastus, erämaapedagogiikka, metsäpedagogiikka, varautuminen / prepping, verkkoteoria, ekosentrismi, maailmankylä

Sammanfattning: Ett praktikfall i landsbygdsresiliens genom en samlingspunkt inom ett utbildningssammanhang i norra Karelien, Finland. NomadTown presenteras: en samlingspunkt (resilience hub) för lärande om krisförebyggande, anpassning samt skapande av positiva samhällseffekter. Utbildningsaspekter av dess subkulturer skissas tillsammans med en mer djupgående beskrivning av den utbildningsmiljö som NomadTown befinner sig i. Sammanhanget för denna miljö beskrivs utifrån ett Foucault-inspirerat perspektiv på maktstrukturerna. Det är fortfarande en öppen fråga huruvida det är ändamålsenligt att på detta sätt inkorporera NomadTown i en föreningsekologi med tanke på syftet att bidra till den nödvändiga stora övergången för att hantera klimatförändringar. En annan öppen fråga är hur lärande på organisations- resp nätverksnivå kan äga rum. Det föreslagna relationsmönstret följer Nahradas Global Village Hypothesis ang. landsbygdsnätverk. Min slutsats är att det utbildningspräglade sammanhanget samt arbetet genom hopkopplade nätverk kan visa sig effektiva medel för att främja resiliens inför klimatförändringar. Dock behöver NomadTown starkare kopplingar till näringslivet och till offentlig förvaltning.

Nyckelord: Miljökunskap, vildmarksupplevelse, nätverksteori, ekocentrism, den globala byn, överlevnad, skogsmulle

Zusammenfassung: NomadTown – ein Beispiel zur Bekräftigung der Global Village-Hypothese: Eine Fallstudie zu einem ländlichen Resilienzhub in einem Bildungsmilieu in Nordkarelien, Finnland. Im Beitrag wird eine Fallstudie zu einem Resilienzhub im Osten Finnlands, NomadTown, vorgestellt. Das Bildungskonzept dieses Resilienz hubs zielt auf Kompetenzentwicklung für Notfallprävention sowie Kreation und Verbreitung von adaptiven und zukunftsfähigen Lebensmöglichkeiten und folgt dem Selbstverständnis eines Resilienz hubs. Zunächst werden die bildungsbezogenen Aspekte der konkreten lokalen, subkulturellen Gemeinschaft vor Ort skizziert. Anschließend erfolgt eine dichte Beschreibung des Bildungsmilieus, in das die NomadTown eingebunden ist. Auf Basis der Foucaultschen Dispositivanalyse wird eine Kontextualisierung des spezifischen Bildungsmilieus der NomadTown vorgenommen. Es wird untersucht, ob die sozialökologischen Bezüge, in die dieses Resilienz zentrum eingebettet ist, geeignet sind, den großen Wandel zu vollziehen, der für die Bewältigung des Klimawandels erforderlich ist, und wie sich organisatorisches Lernen als Netzwerklernen vollziehen kann. Derartige lokale Kulturen und Strukturen wie sie in der NomadTown vorfindbar sind, verkörpern das Konzept des global vernetzten Dorfes der Global Village-Hypothese von Nahrada. Ich komme zu dem Schluss, dass durch diesem Bildungsmilieu und die Netzwerkarbeit in diesem Fall ein effektiver Weg ist, um Resilienz hinsichtlich der Auswirkungen des Klimawandels in unsere menschliche Überlebenssituation zu stärken, aber und zeige auf, dass die NomadTown zukünftig stärkere wirtschaftliche und politische Kooperationenschaften benötigt.

Schlüsselwörter: Ökologische Bildung, Wildnisführung, Wildnispädagogik, Waldpädagogik, Krisenvorsorge / Prepper, Netzwerktheorie, Ökozentrismus, Globales Dorf

1. Introduction

We have developed a world civilisation², with a great amount of technology and wisdom, which seems in sum greater than all prior human wisdom and civilisations. Yet we are in a survival situation. So how can that be? I conclude we are in a survival situation by an assessment of the resource use needed for continued existence of our current civilization and that we are collectively using more than the planet can provide us with over time.

Analysis by the Stockholm Resilience Centre (Steffen et al. 2015; Röckström et al. 2009) has led to a rose diagram showing the transgression of these resources via 5 of 9 planetary boundaries (Figure 1. Planetary Boundaries): Stratospheric ozone depletion, Loss of biosphere integrity (biodiversity loss and extinctions), Chemical pollution and the release of novel entities, Climate change, Ocean acidification, Freshwater consumption and the global hydrological cycle, Land system change, Nitrogen and phosphorus flows to the biosphere and oceans, and Atmospheric aerosol loading.

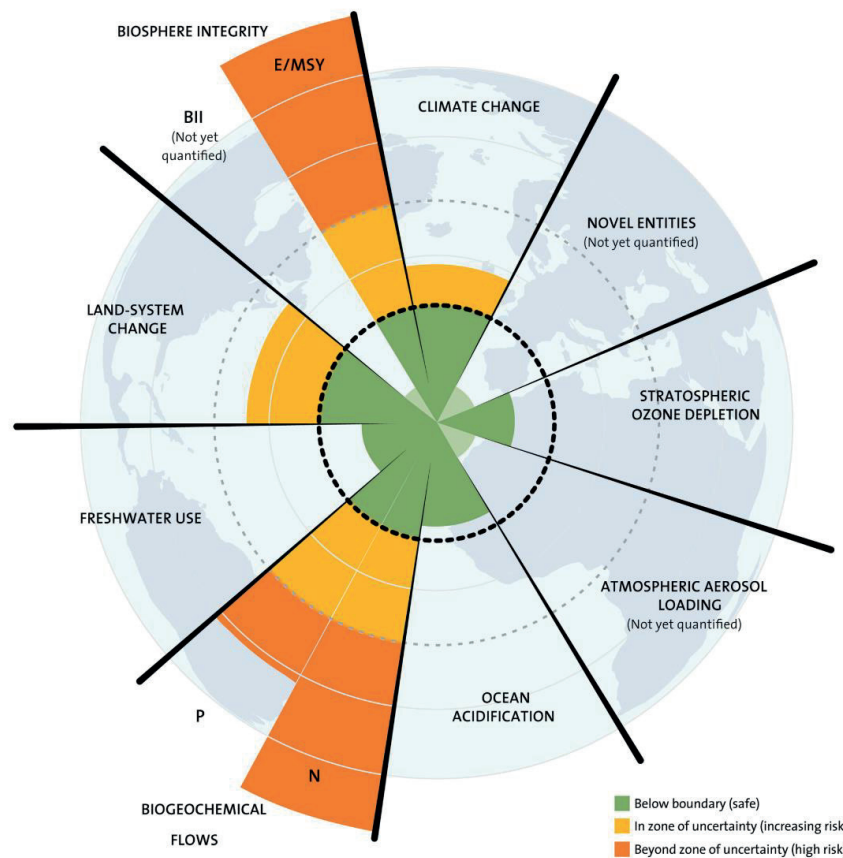


Fig 1. Planetary Boundaries. Source: J. Lokrantz/Azote based on Steffen et al. 2015

The effects of climate and ecological change, via our breach of most of these boundaries (Persson et al. 2022), are so severe and penetrating that we must consider them as putting us in an emergency survival situation. However, dealing with this situation is best thought about, not at an aggregated global level, but at a bioregional level. The bioregion can be summarized as the area contained within a watershed, “the major characteristics of a bioregion; watershed, landform, native plants and animals, soils, climate, and an adaptive human relationship about living in that place” (Glotfelty and Quesnel 2014, 68). An example is Cascadia in North America, which is understood by many as having a bioregionally coherent identity (Freed 2015).

² Here I write about human civilization, and likewise below human culture and a human mediated biocultural landscape. This is not obvious as it is possible to consider a biocultural landscape as consisting of biological cultures contributed to by different lifeforms. It is an anthropocentric arrogance to indulge in ignoring how significant forests and other biological cultures have co-created where we are situated.

In juxtaposition with the distributed bioregional concept, we can observe that collectively how humans have been increasingly living is in concentrated places, that is in cities. This is unsustainable long term (Jensen 2006). In fact, cities are a very recent phenomenon, in geological or even historical terms, and other possibilities from our evolutionary past should be considered to help us find ecologically sustainable habitats for humanity.

Thus, when we consider our social systems and look for a sustainable way of going on, one conclusion is that we should focus on viable rural communities and ask: How do we adapt them to this emergency? This requires looking at our social technologies and the context in which they are used to facilitate the great transition (Petz 2019; Wals 2020; Geels 2011; Köhler et al. 2020; Newell et al. 2020) from our current ecologically unsustainable civilisation to a sustainable one.

In this article, I explore the associations and connections that, manifesting as a network, provide an educative milieu in which NomadTown is embedded. I discuss the community education aspects found around this rural resilience hub. My hypothesis is that this networked learning holds lessons for other locations. And that these lessons offer rural resilience hubs, which are different from urban resilience hubs, as a possible way of transforming rural society to greater sustainability.

2. Background to Resilience and Resilience Hubs

The concepts of resilience and sustainability need clarifying (Ong et al. 2016). What is resilience? Resilience is the ability to withstand shocks to a system and for that system to still then function. The functional attributes may be changed, e.g., feeding a population from oats or potatoes or wheat would be a resilient food system.

Sustainability is the inherent ability of a system to carry on doing what it has been doing into the future. Sustainability does not mean that a society continues to do everything it has been doing, but that it continues to do things that are important, things that define the society. So there is a normative implication in "sustainability". We would not say that society is unsustainable if harmful or insignificant practices are discontinued. Ecological, economic, and social sustainability aspects are all relevant.

Resilience scholars often make a distinction between plain resilience and transformative resilience. So resilience can also mean that a society changes for the better and is regenerative. Here, change is qualitative, perhaps from conventional agriculture to permaculture, and not only an oats to potatoes type of change. These are 2 quite closely related concepts; both the resilience and sustainability concepts have this normative/transformative aspect.

As socio-cultural actors, we want to keep on acting within our cultural systems, but we do not necessarily do the same things as before – so resilience can be a better focus for assessing our cultural survival.

Adaptation in light of the planetary boundaries being exceeded necessitates we look at deep adaptation, which Bendell (2018) described as the “deep adaptation agenda of resilience, relinquishment and restoration [which] can be a useful framework for community dialogue in the face of climate change. [Whereby:]

Resilience asks us “how do we keep what we really want to keep?”

Relinquishment asks us “what do we need to let go of in order to not make matters worse?”

Restoration asks us “what can we bring back to help us with the coming difficulties and tragedies?”

There is a social technology which explicitly aims at increasing ecoliteracy for the purpose of deep adaptation, it is the resilience hub. Resilience hubs appeared in the USA and started in Baltimore as a development from disaster planning (Coffee 2016), particularly inspired by Hurricane Katrina and FEMA’s criticized response at the community level (Lansford et al. 2016). This reactive development has been combined with urban renewal agendas and marginal (the socially excluded) and people of color considerations.

Resilience hubs are now however, not focused on disaster response, but more planning and climate

change mitigation akin to development agendas. They aim to adapt to change and build community resilience. This description is confusing when considering the disaster cycle of:

- 1° Prevention Preparedness Pre-impact,
- 2° Prevention Response Trans-impact followed by
- 3° Prevention Post- impact (Kano et al. 2010)

yet the chronic nature of the wicked problem of the type 2 survival situation³ we are in means all 3 degrees can be seen when looking at our current situation.

A successful example of a long-standing resilience hub equivalent, which has long been doing this capacity building, is the Centre for Alternative Technology in Wales (CAT 2015). Set-up as a reaction to the path dependent problems, which could be seen in development discourses, CAT aimed to prompt alternative directions which could be taken. It has a visitor centre in Machynlleth, where scientific knowledge is conveyed to the public.

This CAT visitor centre is equivalent to a discovery centre, which science and technology museums such as Heureka – The Finnish Science Centre have adopted, where self-learning and discovery by the public is the main pedagogical approach (Adjas 2009). For example, the “Facing Disaster” exhibition which “lets visitors practise their crisis tolerance – resilience – in gamified exhibits and experience the forces of nature as audiovisual art installations” (Heureka and Bordos 2021).

CAT runs residential courses and carries out extension, to have a bigger societal impact, via consultations and publications. CAT hosts the Zero Carbon Britain Hub and Innovation Lab whose Zero Carbon Britain project reports “can be used as a template to help citizens and local and national policymakers develop and deliver zero carbon action plans” (Allen and James 2019, p.x). Writing environment conscious policy is one thing, implementing it is another, with various factors important for success (see Hoppe and Coenen 2011 re successful implementation related to Agenda 21). In CAT’s case, the recent CEO (Adrian Ramsey) is now the co-leader of the Green Party of England and Wales, so the education and policy revolving door with political power aspect is operationalizing such implementation at a national level. Internationally it is part of a bigger resilience building network, “a platform to support closer cooperation. This European meta-network for community-led action on climate change and sustainable development, known as ECOLISE” (O’Hara and East 2017, 7).

The rural setting of NomadTown as a resilience hub, is different from the urban network of resilience hubs in the USA. Yet, many of the operations of those resilience hubs (local contextual development, small scale, future oriented, working with marginalised people, long-term sustainability building) are common to many countryside communities in Finland.

This resilience capacity building concerns rural development, not urban renewal nor regional development and operates under a different paradigm. This is a paradigm which “must be effectively linked, on equal terms, with regional and urban development: it will not be achieved merely as a by-product of regional development or by ‘diffusion’ from urban development ... [and falls] within a broader framework of rural policy” (Dower 2013, 30).

Nevertheless, a resilience hub maybe connected to a city or large town to help transform it directly (for this ecocity / greening the urban approach see Gatlin 2012). As the urban is ultimately not sustainable, rather than a major settlement undergoing retrofitting (Holmgren 2018) or such minor tinkering, action should be taken more at a bioregional level. To do this bioregional learning centres are suggested (Brewer and Riede 2018), one is under development by Earth Regenerators (Brewer 2021; Janes and Snyder 2020) with the local community in Barichara, Colombia.

³ Type 1 and Type 2 Survival Situations are so categorized by us in NomadTown. Type 1 is an acute emergency like a car crash. Type 2 is a chronic situation, and more insidious, like air pollution.

3. Background to Community Resilient Adaptation

As humans, we live in a cultural system which, as well as interacting at a socio-cultural level with other people, interacts with the natural environment (Archer 2017). When we want to consider human cultural interaction within the planetary boundaries, we can use Kate Raworth’s framing as “doughnut economics” (Raworth 2017), to map how socio-economic factors manifest to make functioning biocultural landscapes (Splechtna et al. 2009).

Raworth encapsulates her social foundation as inclusive of (Figure 2. The Doughnut of social and planetary boundaries): Food security, Health, Education, Income and work, Peace and justice, Political voice, Social equity, Gender equality, Housing, Networks, Energy, and Water. The interrelationship of these as a foundation and planetary boundaries means we should not conceive of them as atomised and separated, but in many cases as acting in concert. This is an integral economics position (Lessem and Schieffer 2010).

We thus can see if we are transgressing socio-economic boundaries (the social foundation) and can better relate our human-centric societies to the more abstract breaches of the planetary boundaries (the ecological ceiling). However, there is a lack of consensus over what are foundational needs or derived instrumental ways of realising them, e.g., is energy only a way to achieve food or is food security essential in its own right?

How about education: Surely, we need some knowledge, gained through education, rather than just relying on instinct and our inherent capabilities to survive? Perhaps, there is an assumption of already having these aspects or vice-versa? We can see such confusions in other cases, for example, instrumental and intrinsic values (Justus et al. 2009) or in confusions resulting partly from Maslow’s work.

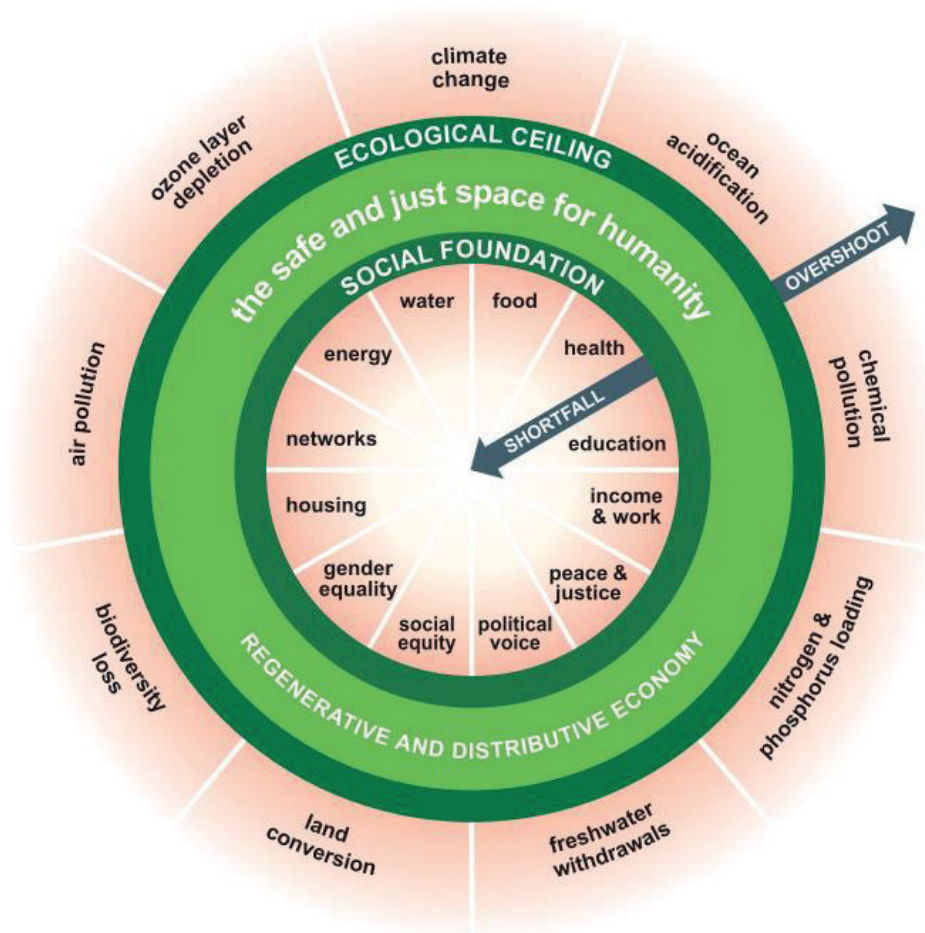


Fig 2. The Doughnut of social and planetary boundaries. Source: Kate Raworth and Christian Guthier. CC-BY-SA 4.0 based on Raworth 2017

Maslow had 2 different pyramids; a Hierarchy of Basic Needs, and a Hierarchy of Cognitive Needs (Sosteric 2019), which interact as a matrix (Grogan 2012). So, self-actualization and transcendence needs only partially rely on the “basic” or “essential needs” being met for an individual and often the scientific and derived literature omits that duality (Sosteric 2019; Sosteric and Raktovic 2020). In any case, Maslow produced a debased written version of indigenous oral history wisdom from the Blackfoot Confederacy, which is more “centered on multi-generational community actualization versus [Maslow who focused] on individual actualization and transcendence.” (Blackstock 2011, 75).

Rather than individuals, organisms provide us with the ultimate adaptive technologies, “the chemistry, processes, structures and designs [...which...] they have evolved and tested over millennia” (Pauli 2010, 7b: xvii). Thus, as an alternative to the individualistic norm, we can conceptualize an organism within the ecosystem / milieu as an approach (Ostachuk 2019). Here, rather than looking at the planetary boundaries in a disconnected-from-the-natural-systems way, we consider our survival priorities from within it and from the NomadTown perspective there are 6: Food, Water, Air, Shelter, Health, and Community. There is some overlap with the social foundation of Doughnut Economics.

Others, from a survivalist background, formulate these differently, for example including security (Carr 2011; Wiseman 2013) and/or warmth / fire (Kochanski 1991; Carr 2011) / electricity / energy (Black 2008), perhaps describing them as “essentials” and indicating other things are needed as a basis such as knowledge / education (Cobb 2014; Canterbury 2015) or attitude (Mears 1990; Ryan 2003; Wiseman 2013), which could all be subsumed under our 6. These are of course simplifications, which are easy to bring to mind, for purposes of allowing rapid assessment, which works in a short-term type 1 emergency situation.

In our 6-priorities conceptualization, the community priority encompasses many of the relational aspects needed for self-actualization and transcendence, while the other priorities cover physiological, safety and security needs. I consider it is important to not only think of individual survival, but collective survival and lived community knowledge over the long-term in place (the organism with-in its milieu).

So settlements (which are a place-based community) should think on all these priorities while considering themselves as embedded in the bioregion. There is a nuance here, with hard bioregionalism being equivalent to strong / hard sustainability and not replaceable and thus prioritizing the natural foundation of a region; Or being conceived in a more normative way, where culture can mediate and thus privilege via a more weak / soft sustainability over and beyond the natural features of a region (see Ong et al. 2016, on soft/hard; and Gutés 1996 on strong/weak, sustainability conceptions).

We can consider that food provisioning, and reliance on fossil fuels to produce and transport the food, makes not only cities, but also many other areas fail in terms of meeting the needs for survival endogenously – this failure puts us in a survival situation. Raworth seems to be more focused on a globally connected urban resilience perspective, though this is implicit rather than explicit. Her work latterly in Amsterdam, in aiming for a more local / regional (yet still urban) perspective (Raworth et al. 2020), is only partially facing this failure.

In contrast to meeting our needs globally, Carr (2004) suggests civil society should look “to establish bioregionally self-reliant economies of “place” networked geographically across “space” via communications and limited trade links” (ibid, 70). Hence local, smaller scale and the rural, which is necessary for survival. And thus, this is where our foundational focus should be. It is the philosophical perspective taken in this paper, which owes much to an agrarianism (Schultz and Harre 2011) or more accurately a ruralist Weltanschauung. Nevertheless, once meeting the immediate survival priorities, we have other long-term needs which we must adapt to meet.

We need to adapt to the situation we are in and shortly to be in (Janes and Snyder 2020). Adaptation here means not only the biological, evolutionary adaptation, but also a culturally mediated place-based adaptation which takes into account the challenges thrown-up in the Anthropocene – the Earth as altered by the actions and mis-actions of man (Cracknell and Krapivin 2009). It requires we look at how to transform to a situation where we gain the knowledge, knowhow and especially wisdom to make the required adaptive changes at a community level.

4. Background to Milieus and the Ecological Perspective

The bioregion is a geographical or even geomorphological concept (“geomorphology is the scientific study of landforms and land-forming processes” (Sack and Orme 2013, 1)) and does not fully account for the human community influencing aspect of culture. There is a concept that does combine these aspects. It is the biocultural landscape.

Hong (2014, 5) has defined “biocultural landscape” as:

“the overall and cyclic characteristics of: a space that acts as a buffer so that biocultural diversity (which is rapidly diminishing but deserves to be preserved) may be developed in a sustainable manner, ecological knowledge utilizing diversity and dynamics of the space, mechanisms to maintain the landscape development process, and an ecosystem which has an influence on the space”.

Landscape is a contested term (it is a human construct and has various strands in its genesis; (see Newland 2016 for a discussion) and is also related to nature – another contested term (Ginn and Demeritt 2009) and prone to interpretive variation based on its framing (see Kieninger et al. 2009). Adding cultural to landscape does not remove the contention (Selman 2012). Nevertheless, this agglutinating term – biocultural landscape – has gained currency within the academic community. How can we analyse it?

I suggest that the concept of the milieu is useful. Milieu was adopted in French to interpret the word fluid or flow. This process came from incorporating the work of Isaac Newton, around flows and fluid mechanics, which emerged within the 18th century mechanistic enlightenment philosophy of the machine, into the French scientific culture. Beyond the metaphorical understanding, akin to an engineering approach, further co-option by natural scientists took the word milieu into their lexicon with the idea of penetrating forces. Latterly postmodern philosophers have purposed milieu in their analyses of the dispositif within a given social system. This evolution can be traced in the work of Michel Foucault with his outline of this etymology (Foucault 1972; 2009a [1978]; 2009b [1978]).

Foucault (2009a [1978], 20–21) defines milieu thus:

“What is the milieu? It is what is needed to account for action at a distance of one body on another. It is therefore the medium of an action and the element in which it circulates. It is therefore the problem of circulation and causality that is at stake in this notion of milieu. ... The milieu, then, will be that in which circulation is carried out. The milieu is a set of natural givens—rivers, marshes, hills—and a set of artificial givens—an agglomeration of individuals, of houses, etcetera. The milieu is a certain number of combined, overall effects bearing on all who live in it. It is an element in which a circular link is produced between effects and causes, since an effect from one point of view will be a cause from another. ... So it is this phenomenon of circulation of causes and effects that is targeted through the milieu.

Finally, the milieu appears as a field of intervention in which, instead of affecting individuals as a set of legal subjects capable of voluntary actions—which would be the case of sovereignty—and instead of affecting them as a multiplicity of organisms, of bodies capable of performances, and of required performances—as in discipline—one tries to affect, precisely, a population. I mean a multiplicity of individuals who are and fundamentally and essentially only exist biologically bound to the materiality within which they live. What one tries to reach through this milieu, is precisely the conjunction of a series of events produced by these individuals, populations, and groups, and quasi natural events which occur around them.”

Foucault here goes beyond a simple description of population in an environment that suffers influences in a neutral way as to what the milieu is, to suggest that there is a normative and manipulative aspect with such influences to be found acting upon the milieu too. Other postmodernists accept his premise in their analyses and term the concept of manipulation and normalization of these systems by what they term biopower (Liljaa and Vinthagen 2014), the exercise of which is carried out by biopolitics (Foucault 2009a [1978]). The bio, acted on, in these terms, refers to human populations.

There is something unsatisfactory in this description. We have the machinery, the elements it acts on, and where it is acting, but somehow, we seem to have lost the flows and fluidity. Yet we can envision them acting within this milieu. A way to think of them is to think of them as current-sees, or currencies or capitals that are flowing. Knowledge capital, social capital, and financial capital for example. For a discussion of capitals and capital flows, see Petz (2020). Rather than the machinery or machine we can use the term *dispositif* / *dispositive*.

Dispositif is somewhat of a slippery fish with an analogous developmental path in concept to milieu. A brute translation would be apparatus or device. However, it is not a concrete thing, rather it is an abstraction that is an aggregation of other dispositives that share a commonality as an ensemble. We see an implication as “disposition” in Descartes (who likes his machine metaphors) as an arrangement of parts (in Canguilhem 1952); that is later used as a term by Canguilhem (1952), who prefers seeing things as organisms and adjuncts of them. Foucault (1980) takes up *dispositif* and regards it as the non-material, who according to Braun (2014) passes it to Deleuze where anything with some connection goes! After, Agamben (in Braun 2014) puts his spin on Deleuze’s take, as anything with an influence, and finally (so far) it ends up with Braun with his “*dispositif of resilient urbanism*” (Braun 2014) where it is government, effectively being management in an ad hoc impromptu manner.

I follow Foucault with the *dispositif* being:

“a thoroughly heterogenous ensemble consisting of discourses, institutions, architectural forms, regulatory decisions, laws, administrative measures, scientific statements, philosophical, moral and philanthropic propositions ... which has as its major function at a given historical moment that of responding to an *urgent need*.” (Foucault 1980, 194–5).

That urgent need, in our case, is the all too real dystopia of climate collapse. Lastly, my perspective of an “integral” insofar as it serves to harmonize nature and culture, society and economy” (Lessem et al. 2016) approach, which goes beyond a postmodern atomizing approach (Berry 1999: 598), leads to a slightly different usage of these perspectives as tools. Tools not only for a descriptive analysis, but to give a prescriptive action-oriented output, in “a field of intervention” (Foucault 2009a [1978], 20–21), that is ecocentric rather than anthropocentric.

5. Background to Networked Learning

Mapping, followed by connecting, and transforming is aimed at when taking an action research approach to the milieu. I supported the development of NomadTown as a Regional Information Coach (ERDE 2009) and as an Earth Regenerator (Janes and Snyder 2020) with just such aims. Such rural networking has been suggested before, with thematic villages (Kłoczko-Gajewska 2013), as a system of interacting mutually supportive local communities. This rural interaction is called the “Global Villages Hypothesis” by Nahrada (2007).

Franz Nahrada runs the lab GIVE. He states that the:

“GIVE (= Globally Integrated Village Environment) project ... *was conceptualized ... out of the experience of rapid decay of mountain villages and sparsely populated areas. ... GIVE is about a new synthesis between rural villages and global culture that emerged from cities. The idea is to combine peace and tranquillity of rural areas with empowering people to work together in the most rewarding way locally and globally, and transform their rural villages into “Global Villages”*”.

Nahrada further states there are “*three main pillars*”:

- *start a transformative process from educational institutions to show people the opportunities of local development...*
- *build on local matter/energy cycles and integrated space use, use environmental technologies as main source of wealth and integrated resource management. Try to discover deep links with human – supported nature, combine architecture and horticulture, automation and appropriate*

technologies.

- *although the lifestyle of Global Villages is thus totally different from urban lifestyle and they tend towards informal economies ...At least some “villagers” should be able to participate in the “knowledge economy” and get the means to acquire necessary tools and technologies.”* (Nahrada, 2007)

The Global Villages Hypothesis takes advantage of the "space of flows hypothesis" (Castells, 1997) where time and space are compressed (Harvey, 1990; Hornborg, 2003) – not only as they are within a city, but also between rural locations, the ramifications of which could be explored at a global level (Hornborg, 2009). Traditionally, rural areas more poorly access relational capital, providing a significant disadvantage contrasted with urban areas.

This case study of NomadTown investigates what I term an educational milieu (though it is also a resilience milieu and an associative milieu i.e., associations connecting), and regard as crucial for resilience hub efficacy. This connection possibility rests on an alternative way of mobilizing relational capital by an enabling ICT dispositif with techno/neo/traditional nomads transferring learning.

The realization of this potential leads to new product possibilities (and in NomadTown’s case services, with an educative thematic network) and is made on the basis of new space-transcending infrastructures: not just telecommunications, but a web of intensive shared information. Rather than a hierarchy from big cities to small villages, we can have networked villages (in our case projects as nodes / hubs) to meet the demands of a resilient ecosocial human society.

For such a network to work properly, 3 dimensions in the network have to function:

- the comprising villages, in themselves;
- by microregional clustering;
- and in aggregate, in networks.

In this paper, I describe NomadTown (the functioning “village” in itself); the nascent aspects of this network (microregional clustering), which NomadTown is part of; and partly its global connections (aggregate in other networks).

Innovation studies have considered aggregation in terms of technology clusters, but with a focus on the business sector rather than civil society (Malmberg 1996). Nevertheless, the key features that are important in the formation of a milieu are also applicable to non-commercial areas of life, namely clustering occurs in human social environments as a “decentralized regional network-based system” (Saxenian 1996, 8) due to: “the social structures and institutions of a local economy” (Saxenian 1996, 6) which depend upon the characteristics of actors being open, and with “an element of cooperation” (Malmberg 1996) where infrastructure and knowledge are present to facilitate this culture.

Useful ways of exploring clustering can be found by looking at the helices models; that have extended beyond the triple helix (University, Industry, Government) to the quadruple helix (adding Civil Society) to the quintuple helix (further adding the Natural Environment), which explicitly aim at the concept of the knowledge society for (economic) innovation (Volpe et al. 2016). However, here we are seeing such learning develop in a human community (social capital) which is not focused on financial capital.

How does NomadTown connect into the wider landscape, and particularly the educational landscape? There is a matter of perspective which is important to understand the connections that are relevant. We can look in an atomized way at individual features such as people, places, or projects. This is often what is described around a network, rather like looking at the trees in a forest. Or we can look at the connections between these elements, the space between and what makes the landscape cohere, rather than looking at the mycorrhizal network in a forest, which allow nutrients to flow so the forest is a coherent whole and supports less viable areas to flourish.

A focus on this networking can be applied to settlements, the bioregion and the cultural landscape that form a biocultural landscape. Such an integral approach means we must be minded how the cultural and

the biotic are both important as a social ecological dyad (Yletyinen et al. 2021; Woods et al. 2021). Even though this paper focuses on describing the human educationally related aspects, they are strongly influenced by the natural endowment (Sun et al. 2018).

The learning which is described is organizational learning. The pedagogy is that of connectivism, whereby learning is influenced by a “diversity of networks” with “complex learning...[from]... diverse knowledge sources” and is “social, technologically enhanced” with knowledge transfer by “connecting to (adding nodes)” (Seghroucheni et al. 2014). This can be seen by the resilience hub connecting to other organizations and the network learning, collectively learning. This is not individual learning, but organizational and the growth in learning and knowledge in this didactic triangle (knowledge-apprentice-master) can be seen and measured by looking at the nodes and depth of learning (by the presence of learning artifacts, social technology practices and other objects) within those nodes organizationally.

We can usefully think of education here being a theme. And if we think thematically rather than in a place-based way then the specific locations, organizations, and individuals described below are ways of accessing that theme. Useful concepts are:

- Thematic Networks – Thematic networks may share knowledge within a particular domain across a wider geographical area. Individual and group members belong to the same community of interest. We can see that with thematic villages, for example book towns (Seaton 1999).
- Platforms – facilitate practitioners to practice, continuous professional development, by providing a shared space where the like-minded can share opportunities and actions. Individuals join to explore and develop new things. For example, Pixelache a transdisciplinary arts platform (Paterson 2016).
- Nomadism – founding networked connections by individuals that are mobile. Individuals, who are influenced by the philosophy of nomadism and have mobile cultures with more of a concept of outreach take and bring ideas between different places and sub-cultures.

This leads to the research question:

How does NomadTown interact with its cultural milieu for successful climate mitigation?

6. Research Aims, Data and Methods

6.1 Aims

The initial impetus for this research was the type 2 survival situation we are in. The aim was activism and not academic research in initiating NomadTown. Thus, the experimental nature of this research is the manifestation of NomadTown as a functioning entity within its milieu. This is action research, with the emphasis on the action side.

Action research (Carson and Sumara 1997; Lagae 2012) is closely connected with artistic interventions (Crawshaw and Gkartzios 2016; Douglas 2005) and here there is a public outreach aspect (Botero and Saad-Sulonen; Nielsen and Nielsen 2016; Egmoose et al. 2020). Both Christof “Huck” Middeke and I discussed NomadTown as a way to reach a wider audience with our specialist knowledge of survivalism, bioregionalism and resilience prior to NomadTown being initiated. This is very much in line with social representation theory, where the aim is “the transformation of scientific knowledge developed by lay people and the media into common sense” (de Rosa 2013: 31).

In social representation theory, this process is called objectification, whereby something abstract (e.g., resilience) is turned into something more concrete (e.g., NomadTown as a lived experience). To objectify (create an artifact or object) meaningfully, a new phenomenon (objects, relations, practices, and experiences) must be given coherence within a milieu, which is called anchoring. Anchoring is so named as it means an object is anchored, and thus integrated, into an existing worldview, so it can be understood in familiar terms by those holding that worldview (de Rosa 2013).

This is an artistic process. And in our case, “climate change, new forms of interaction and social practice” (de Rosa 2013: 31) were anchored into the existing agrarian viewpoint of the local community, and

the wider subcultures connected to those of us doing this, our milieu. Thus, we aimed for anchoring to create social representations, which would form collective representations in our milieu. The milieu can then share and transmit those representations more widely, and this dissemination is an explicit aim of this research (see Arnaboldi et al. 2017; Gladwell 2002 on networks and information diffusion).

We came to this decision to carry out this action research partly due to a tool, which has been developed as a social technology called S.T.O.P.

S.T.O.P. is interesting for research on networking as an object. It is, in this form of praxis as a social technology, new. Its dissemination is relevant, in how it relates (anchors) to our resilience related milieu and can be mapped. As of yet, it has not spread in NomadTown's milieu very far. Yet it has been prototyped, and the initial stages of identifying the possible directions of spread have been identified: S.T.O.P.s as a social technology developed in NomadTown have been used in Norway, Sweden, Germany, Australia and elsewhere in Finland and once digitally as a cyber-S.T.O.P.

So what is S.T.O.P.? S.T.O.P. as a tool seems to be about 50 years old. Although there are precursors, that suggest similar methods were being carried out decades before, I have found no documentary evidence to link them with S.T.O.P. It appears that it originated in the United States of America as a survivalist technique. After this, it has spread through military, survivalist, and prepper communities.

It is important to note that the mass media creates discourses and perceptions, which are liable to different interpretations on these terms, a deep exploration of these is outside the scope of this paper. However, the military, for example, may be seen as an aggressive warlike force in some cultures, yet in others seen as an extension of existing rescue services during disasters; survivalists can be seen as post-apocalyptic fanatics or those practicing woodsman skills of living close to the land; and preppers as those with right-wing extremists' agendas keen to implement a fascist gun-toting society or those ready for any unfortunate situation should it arise within the existing civilization.

The earliest references I found are in Montana Outdoors, with "S-T-O-P! ... Stop Think Observe and Plan" (Wojcik 1974) and Eugene "Gene" Fear's *Surviving the Unexpected Wilderness Emergency* (Fear 1972). Briefly, S.T.O.P. is a mnemonic, with the letters in NomadTown's S.T.O.P. standing for:

S. Stop – Sit down, go on Strike, and Stop what you are doing.

T. Think – and also Thank – and Tea – take a cup of tea!

O. Observe – Orientate toward the Opportunities we have.

P. Plan – Make a plan and then, if possible, Proceed to carry it out.

In NomadTown as a stepwise innovation from a tool to be used by an individual in a type 1 acute emergency, we in NomadTown have developed S.T.O.P. to be a social technology to be used by a group in a type 2 chronic emergency. It can also be used at a single stand-alone event, or longer term in an ongoing evaluative process.

S.T.O.P. development was then funded from the European Union DEAR programme run by the DG DEVCO via the Bridge47 project (Hendry 2019). Bridge47 aims to promote Global Citizenship Education of the United Nations (Nikolitsa-Winter et al. 2019) for realisation of the UN Sustainable Development Goals. Global Citizenship Education has much in common with Global Service Learning (Da We Yu Hills 2014; Hartman and Kiely 2014b; 2014a; Battistoni et al. 2010).

And as a part of that Bridge47 project NomadTown was investigated scientifically. So the praxis of S.T.O.P. is the praxis of NomadTown and the praxis of sustainable development.

6.2 Methods

Community-based participatory action research (Lagae 2012) was the main methodology used to develop NomadTown. Methods included a deep hanging out, a form of participant observation (Geertz 2000), video documentation and thematic events carried out, which could be described as an ethnographic approach using serial hanging out (Sandhu et al. 2007) that is appropriate to the rural environment

NomadTown is culturally situated in.

There are several methodological approaches embedded in this research, which are largely out of scope of the article, but can be of interest to the reader. Case study research has a variety of different questions in just how scientific is it? Here, I followed the philosophy and praxis found in Yin of carrying out scientific case study research (Yin 2018), with influence from the idea that Thacher (2006) of normativity where a “normative case study also holds special promise for policy-oriented research.” See Lincoln et al. (2018) for further exploration of what a case study can be.

I decided to present NomadTown using a research case study approach due to its “contemporary nature” and “lack of control” over how it manifested during the research phase (Yin 2018). The Covid-19 pandemic restrictions prevented us taking S.T.O.P. to other settings, including the art festival Norpas, as action research to explore the nomadic nature of NomadTown’s technology within the associational milieu. As a result, the nomadic aspect of individuals moving through a network could not be investigated as hoped for.

Much of our focus was thus around development of the S.T.O.P. technology and not the wider milieu. Or rather the focus was at practical level on: How do we run a workshop? and Who do we know that is interested? Climate change is quite abstract for many people, and they just cannot connect it to their lived realities. As a result, in NomadTown, we do not talk about climate change and instead try and communicate on common ground between practical actions and these more abstract climate or ecologically related concerns.

Furthermore, those running a wild-plant foraging workshop were not actively thinking at the metalevel on how this connects to an educational milieu and may have a long-term decadal transformational / adaptational effect, more they were focused on meeting the requirements of the funders to run the workshops they had promised and at a more basic level on: How do we connect-up people locally who are active in our organization?

Nevertheless, those engaged in planning the EU S.T.O.P. project were more aware of the long-term implications and networking aspects for this metalevel application and did (as done here) consider the aspects embedded in this research question in our praxis as explained below.

6.3 Data

We have recorded as participants audio interviews, video recordings of summaries from sessions. Journaling of events also proved a useful source of information, with around 15 facilitated communal different S.T.O.P.s having taken place. We produced podcasts, and some teaching on courses. For example, at the National Preparatory Study Days, which promoted the public information campaign, 72 Hours: Home Preparedness – Useful Tips for Disruptions and Emergencies (SPEK 2020).

This article is autoethnographic (Buchli and Lucas 2001; Harrison and Schofield 2009; Adams et al. 2017) in much of the way that it describes the subcultures which I am an active member of. There are no others in an othering sense (Das 2015), and it can be thought of as something I am rather than something I do (Petz 2010). I am myself a co-learner (Nagel 2008), co-teacher / peer mentor, student, scientist, practitioner, activist (scientivist and activist), as are others in my culture. It is very much a thick description (Geertz 1973).

Analysis has been carried out by iterative reflection on different elements of S.T.O.P. This has been done with the principal informant, Christof “Huck” Middeke, individually, over email and via telephone conversations and collectively at events. This is described as peer mentoring. Further comments and conversations with Teppo Eskelinen, Tatiana Ryba, David Crookall and Andrew Paterson have helped develop the paper.

Talking circles which are a part of S.T.O.P. events, but also occur outside a #FullMoonFullStop, which is a regular monthly S.T.O.P. event which takes place in NomadTown allowed collective introspection from the wider community around NomadTown. Additionally, I have taken into account ethical considerations and requirements in those I have worked with. As a result, human participants are anonymized where

necessary and personal or sensitive data is not used.

Social media were used during this research (Batinca and Treleaven 2015). Facebook, a social network; WhatsApp, a messaging service; Twitter, a broadcasting service; and YouTube, a video hosting platform all have relevant content, though it is often siloed. See Luttrell (2018) for more info on these different social media. Generally social media were used to identify relationships and connections and explore knowledge transfer.

They were tools for carrying out project administration and knowledge transfer and not only mined for data. As this is action research, they serve this dual purpose of: creating a record of what was done and are doing, while doing it; and revealing relationships between different actors and people over time when looked at using an archaeology of the recent past methodology.

An online media survey found mentions in local newspapers: Karjalainen (Sievaläinen 2018; Koistinen 2018; Kauhanen 2020; Leinonen 2020); Heili (Dannenberg 2018); and by YLE, the national broadcaster (Nurmi 2019; Laininen 2021), which were used for clarification of what had happened.

Having gathered the data, the theoretical side was carried out by consulting the literature. I used Google N-gram Viewer (Islam et al. 2012) for analysis of S.T.O.P. development. Wikipedia, a crowd sourced encyclopedia; Google Scholar, an indexing service; and Sci-Hub, a journal sharing platform, have proven useful for literature surveying and reaching some sources.

7. Presentation of Maaseutuyhdistys Sydänlanka ry and NomadTown

Maaseutuyhdistys Sydänlanka ry (Rural Association Heart-thread) is a small association located in North Karelia, Finland. Sydänlanka was founded in 2016 “to strengthen people's relationship with nature and increase community” (Sinkkonen 2019). As a dynamic, future focused organization its membership “wants to constantly teach and learn something new. Through creative activities, the association wants to awaken and empower people in different life situations” (ibid). Thus “Active members of Sydänlanka organize workshops, excursions, cultural events, sharing circles, community workshops and spending time together, caring, sharing and rooting as a collective” (ibid).

Sydänlanka's values “include working together, nurturing the connection with nature, locality and spiritual growth” (ibid). Recently, Sydänlanka has been developing a resilience hub called NomadTown. The name NomadTown has several facets. No Mad Town – referring to that NomadTown is not a mad way of going on, was noticed after it was spoken by native Finnish speakers, and by implication that the way that urban living often manifests (which is not ecoliterate) is a mad way of going on. NomadTown sounds good in English due to the vowel combinations. “Town” is used here to mean a small settlement (a village) rather than a big city.

Nomad refers to nomadology (Muecke and Roe 1996) and the mobile possibilities within the project, which were conceived into the design of the project. At present, NomadTown manifests as a small intentional community situated about 7km from Joensuu's market square. There are some permanent residents, although there is capacity for up to 18 (as initially planned for), most do not live there year-round, though some lived for several months, moving through who are neo-nomadic (D'Andrea 2006).

It is “a place where others can come and participate and try what works and where are their edges” (Middeke in Laininen 2021). NomadTown, although close to the larger settlement Joensuu, is not just for transforming Joensuu, but also in connection with other actors is creating a network of transformation.

The residents live in yurts, tents (and in one case with only a hammock) or similar constructions that are planned to be mobile so the whole settlement could move. There have been 2 on-site living experiments to try and subsist by avoidance of fossils, rubbish or money. Some gardening is done to explore sustainable small-holder food production.

NomadTown was developed through a process of conversations with different people, sketches, and design thinking about what it could include and how it could manifest. In the case of NomadTown there is a “utopian propensity” (Manuel and Manuel 1979, 5) in that exercise of “a different sovereignty”,

similar to that found in an intentional community (Liljaa and Vinthagen 2014). It was thought of as living into reality sustainable adaptation to our current situation (i.e., we are in an emergency situation, we are not just preparing for one that may come).

NomadTown has been inhabited from August 2019 by Christof “Huck” Middeke (Nurmi 2019), who is a member of Sydänlanka ry, and the main driver of the project. Huck is a wilderness guide and comes from an environmentalist activist background (a “standby” Greenpeace employee). I have been giving scientific support from prior to its foundation and met Huck when I was the National Coordinator Extinction Rebellion (Naukkarinen 2019).

Members of Sydänlanka have been supportive in meetings, talkoots (communal work actions) (Köppä 2010) and other activities, such as a weekly sauna at NomadTown. Thus, as an adopted child of Sydänlanka, NomadTown has been influenced by the Karelian culture that the mother association has grown up in. Though the influence is not particularly strong, with other palearctic cultures also influential in the mix. Karelian culture⁴ gives the spiritual origin, through myths and legends transferred by traditional runo singing (Oras and Sarv 2017) of much of the Finnish ways of being (Fingerroos 2012). Beyond these romantic cultural origins, Finno-Ugric land-using relationships have been influenced by:

1. Nomadic reindeer herding culture, embodied today by the Sámi people. Within the lifetime of a landscape, over deep time, such nomadic practice and associated philosophy was widespread (Helle and Helama 2007) and can be seen in the memory of the silent witnessing forest. However, in our lifetimes the form the Sámi reindeer herding takes is organised / controlled by nation states through an agricultural land-use system (paliskunta in Finland). In other words, today, it is not a nomadic practice. Yet in Scandinavia, there is some revival of the traditional formats, which have been kept as a cultural memory, called siida (Sara 2009). Such land practice did not occur significantly in the area where NomadTown is currently located, though awareness due to this contact culture is present.

2. Manifesting in the south of Finland is the farming and even forest-based agricultural way of living which has shaped much Finnish culture (Reitala 1987; Peltola and Leskinen 2009; Kimmo 2012). Trees are effectively farmed and grown like crops rather than interacted with as wild woods and this farmed / forested landscape can be considered the *natural* “natural givens” of NomadTown’s milieu. Farmsteads were settled houses for yeoman farmers with larger being mansions (kartanot) (Jutikkala 1962), which were related to larger market and administrative towns (linnat – or castles) in a feudal system, which restricted where goods could be traded, and people could live (Heinonen 2021).

NomadTown straddles these ways of existing with rural skills (Marks 1977; Logsdon 2017), green skills (Vona et al. 2015; Diep and Hartmann 2016), and country living (Emery 2008; Gehring 2010), which includes foraging (Kallas 2010) and low environmental impact technologies (Judd 2007 [1897]) taking place in NomadTown. They have also been called “climate skills” (Laininen, 2021). While these are practical skills, they can be found in many settings and there is a generalizability to many other settings.

The ry (rekisteröity yhdistys) in Sydänlanka’s name means it is registered with the Finnish Patent and Registration Office, which gives a particular legal status (it is an officially recognized association and after 3 years can get some grants, but must keep a membership list) and gains certain financial benefits (it can have some subsidised workers fully paid for, pays a lower tax rate in some ways than companies and has some state grants available) as a result.

There are over 106 000 such associations (PRH 2020) in a country with a population of 5.528 million

⁴ NB Pers. Comm. Teppo Eskelinen, Department of Social Sciences, Joensuu, University of Eastern Finland: it is good to note that “Karelian culture” is not only cultural heritage, but to some extent also an invention of the Finnish 19th century elite, to support the Finnish national independence movement (and, inevitably, Finnish nationalism). “Karelia” has also later been symbolically very significant to Finnish fascists, such as Akateeminen Karjala-Seura, for whom “reuniting” eastern Karelia with Finland was a key goal. So expressing political goals by reference to “Karelia” potentially has this semi-fascist connotation. Also, to the extent that Karelian culture exists, Joensuu is not culturally part of Karelia, but rather the eastern extension of Savo. It was just branded “North Karelia” after the Winter War in 1940, when Karelia became Soviet territory and Finland wanted to claim that “Karelia” still belongs to Finland.

(Statistics Finland 2020). Along with the project funding or capacity-building support that exists within the country, to help create organizational resilience, this associational dispositif manifests as an effective third sector in Finland. As part of this dispositif, Sydänlanka networks with several associations.

8. The Actors in the Milieu

Having described how NomadTown is related to its institutional environment I now turn to the “artificial givens”. These givens are comprised of individuals, associations of various kinds and networks. They could be described as actors, Aurenhammer (2016) states “Networks generally consist of actors (which are nodes that i.e., hold one’s own individual capacities and willingness) and vectors (which are their interactions/-relations i.e., of in-/formal, non-/material capacities.”

There are several issues that arise with the term actor, namely: Is a network an actor or a construct as an emergent property used by actors, even a vector? There is an issue of scale, is an individual an actor in the same way as an association or even several associated organizations reaching a national level organization? This is not made very clear by just using the term actor. Thus, there is a normative filter and in our case the evaluation of an educative milieu is our perspective, based on our records of connections with others in that milieu. See Aurenhammer (2016) for a relevant discussion around aspects re actors and network research.

Activities are carried out by individuals, even within associations, and disentangling a community or population from an individual to ascribe it a status as an actor is fraught with challenges. Consequently, my description mentions some key actors (Figure 3. Actors in the Educational Milieu of NomadTown), which I think are significant to NomadTown’s milieu due to intersecting circles of action (Helix cluster focus). They, if successful in bringing about transformational change, could be described as “firebrands” (Hoppe and Coenen 2011) or “pioneers” (see Eckerberg, Forsberg and Wickenberg (1998) for a discussion of pioneers in educational environments in a Nordic country).

The whole network can be described as a hairball, and it is necessary to winnow the core or most significant elements from the mass. Unfortunately, the weak ties who are peripheral, liminal, and marginalized are often more responsible for the network effects of knowledge transfer than the most noticeable or core participants. It is with the weak ties where there are many interactions between sub-cultures and contact cultures. Social representation theory shows this diverse exchange spreads ideas between the periphery and cores of those cultures, and thence to the mainstream culture. This is done by bumblebees, nomads, troubadours.

Mobilizing strong and weak ties from general network theory does have merit. Yet focusing on such a concentration would lose the overall description of how the educational milieu looks, which I want to identify, and thence use to support other incipient resilience hubs bioregionally.

Status	Actor Mentioned in the text	Helix Cluster Focus	Level of action / Role re NomadTown split into: the functioning “village” in itself; microregional clustering, and aggregate in other networks
Individuals	Christof “Huck” Middeke	Civil Society, Natural Environment	the functioning “village” in itself; microregional clustering; and aggregate in other networks
	Marcus Petz	University, Civil Society, Natural Environment	the functioning “village” in itself; and aggregate in other networks
	Jussi Sinkkonen	Civil Society	microregional clustering; and aggregate in other networks
	Lasse Nordlund & Maria Dorff	University, Civil Society, the Natural Environment	aggregate in other networks
	Ossi Kakko	Industry, Civil Society, Natural Environment	aggregate in other networks
	Small Groups	Sydänlanka ry	Civil Society, Natural Environment
NordicByNature		Industry, Natural Environment	microregional clustering
Tampere Bushcraft Group – for English speakers		Civil Society, Natural Environment	microregional clustering; and aggregate in other networks
Larger Groups	Marttaliitto (Martha Organization)	Government, Civil Society, the Natural Environment	microregional clustering; and aggregate in other networks
	Extinction Rebellion (Elokapina)	Government, Civil Society, the Natural Environment	microregional clustering; and aggregate in other networks
Platforms	Pixelache (including Pixelversity)	University, Industry, Civil Society	aggregate in other networks
	FINGO	Government, Civil Society	aggregate in other networks
	SAMMAL Village Technologies	Industry, Civil Society, the Natural Environment	microregional clustering; and aggregate in other networks
Networks	Foraging & Herbologies Network	University, Industry, Civil Society, the Natural Environment	aggregate in other networks
	SUCH (Sustainable Change Research Network)	University, Civil Society, the Natural Environment	the functioning “village” in itself (soon); and aggregate in other networks
	SKEY – Suomen Kestävän Elämäntavan Yhteisöt ry (The Finnish Association for Sustainable Lifestyles)	Civil Society, the Natural Environment	the functioning “village” in itself; microregional clustering; and aggregate in other networks
	Utopie Camps	University, Industry, Civil Society, the Natural Environment	aggregate in other networks

Fig 3. Actors in the Educational Milieu of NomadTown. Source: own elaboration

8.1 Individuals

The S.T.O.P. tool in its adapted form has been shared in survival trainings through NordicByNature, which is a collective of several wilderness guides who offer survival and bushcraft courses as a commercial service (Turunen 2015; Middeke et al. 2018) and at lessons given by Huck at Joensuu seudun kansalaisopisto (Joensuu Community College), originally a free college, much influenced by the ideas of community education in the folk highschools. The Finnish folk highschools (kansan opistot) are subtly different from the other Nordic folk highschools, (Lövgren and Nordvall 2017).

The colleges, and especially historically these folk high schools, were aimed at adults in the vein of Workers Educational Association courses, which are a mix of recreation, learning and skills aimed at broadening community “learning opportunities ... for all ... to make good things happen in our communities and bring change to our society” (Widdowson 2019, 5). This flexibility allows those of us in this milieu to present sustainability topics in a context and pedagogical style of our own choosing.

I have taught in such colleges with elements of resilience in my teaching. However, two other individuals of note in working to promote sustainable ways and acting much as contemporary agricultural extension services do (Research, Extension and Training Division, Food and Agricultural Organization of the United Nations 2000; Benson and Jafry 2013), but in the field of resilience building, in several educational projects are Ossi Kakko and Lasse Nordlund⁵.

At the cooperative-ecovillage-school Kyläosuuskunta Gaija (Osusuuskunta Gaija 2017) Ossi Kakko told me in 2020 that he works “to produce an educational environment for studies of nature and sustainability” He is in his “approach anti-academic, which means “academic people” have gone through such an organized alienation that they are failing in sustainability due to lack of capacity to comprehend systems of life.” and finds the “Similar problem seems to be non-existent in the non-academic world of practically illiterate people, who are to [him] more properly educated than any of the doctors in any academic context”. He regards that broadly the “Academic community is a great disaster for the planet ... as is any other community of alienated people”.

Lasse Nordlund and Maria Dorff (Väänänen 2019) have started a school called Omavaraopisto (The School of Self-sufficiency) in collaboration with the folk high school Kainuun Opisto (Nordlund and Dorff 2019). Omavaraopisto is further supported by SUCH, the Sustainable Change Research Network (see below, 9. Networks). All of us explicitly want to reach out more widely in a reformist way, as the folk high school movement did in the 19th century, to achieve societal change not only individual capacity building.

8.2 Small Groups

NomadTown is influenced strongly by the prepper or survivalist mindsets. The prepper mindset can be thought of as a practitioner oriented one, which is analogous to that found in first aiders learning basic medical knowledge (Katona et al. 2015), in both cases for emergencies. “An emergency is a threatening situation that requires immediate action but may not necessarily result in loss or destruction. If an emergency is managed successfully a disaster may be averted. A hazard is a possible source or danger that, upon interacting with human settlements, may create an emergency situation and may lead to a disaster” (Kano et al. 2010).

Preppers aim to know how to deal with such a situation, and be prepared (prepped) for it, with knowhow and equipment, respectively. An example of such a location-based group engaged in such prepping is the Tampere Bushcraft Group – for English speakers, which is geographically limited and culturally mediated by a cultural-linguistic framing (although it’s around 40 adult members that are from Finland, the UK and Japan). Meeting in an ad hoc way, it explores food technology, shelter construction and technology adapted to wildlife guiding and survivalism.

⁵ Ossi Kaako has given a foraging and compost building workshop at Hirvitalo in Tampere, a contemporary art gallery run by a community arts association directly relevant to community education. Lasse Nordlund has also launched a pamphlet (Nordlund 2008) around an event there. I ran a sustainability scenario workshop there too.

Learning in the group occurs as microlearning (Hug 2005) via Facebook (which I and Huck have been active members of), a social network, e.g., the exploration and evaluation of Google Lens to identify plants (Shapovalov et al. 2020), discussions on animal traces and kit. But community embedded learning also takes place in physical meetings in wilder areas. There are various traditions that can influence how this praxis manifests, with adult members having children that have engaged in related learning environments.

For example, I went with my son Saxifrage on a nature trail minibeast hunt to Pyynikki Nature Reserve and heritage area, Tampere (Lievonon et al. 2002). This was with Saxifrage's preschooler peers from Enkku – The English School of Tampere following a forest schooling approach (Leather 2018). In Finland, this approach is often known as luontokoulu (nature school), and several have been run by Suomen luonnonsuojeluliitto (Finnish Association for Nature Conservation).

Waldpädagogik – forest pedagogy (Bolay 2015) and the scouting movement (which includes bird identification, orienteering, campcraft and a wide range of skills taught for merit badges) are influences on others' children too and thus affordances⁶ (Rantala and Puhakka 2020). Affordances (Gibson 2014 [1979]) here means that what is possible and thought to be possible by Tampere Bushcraft members is affected by their experiences with the scouts (and others) in nature settings, as the environment is perceived "in terms of affordances the emphasis changes from a physical description to a functional" one (Brymer et al. 2014).

Finnish scouts have family and young children's groups (age 7–9) and slightly older child groups (ages 10–11; 12–14; 15–17) which do ask adults to help with setting up camps or as volunteers, even if only their children are members of the scouts (adults can become scout members). One child sea scout from Tampere (Nettle, my daughter) has participated in NomadTown, in co-creating a podcast about it. Several of the Tampere Bushcraft Group members have trained as wildlife guides in Finland (as have some NordicByNature members), which adds to the affordances mix.

One wildlife guide is Tampere Bushcraft Group founder, Dan Fraser, who writes the "group is for like-minded individuals to get together and discuss matters of bushcraft, wilderness travel, and nature in the Tampere area. The intention is that we all have our different levels of knowledge and ability, and we can all teach and learn from each other. All members should be active in participating in this group. Keep the knowledge and friendship flowing." (Fraser 2018) Trips to explore wild areas have investigated camp crafting, trail making, fire-lighting technology, fishing, fungus forays and wild foraged food cookery.

These weak ties connect via individuals the small groups to NomadTown and collectively form a resilience milieu. The variety of projects and themes realised are carried out in concert with an ecology of small associations (such as Tampere Bushcraft), but also some larger ones. For example, NomadTown residents participating in wild food foraging courses, e.g., Jotakin hortoilua – something to eat, run by the Martha Organization.

The Martha Organization (founded 1899), which deals with "Home economics: ... Food and nutrition; Home gardening and environmental protection; Household economics and consumer issues." (Lindqvist 2016) operates nationally and "take part in a variety of campaigns together with other organizations and authorities" (Lindqvist 2016). For the Marthas "Adult education is an important field of activities and is implemented in study groups. [Wherein ... themes vary from human relations, women and development, gardening and environment to cooking and healthy eating." (Lindqvist 2016).

Thus Marthas, as do other associations, are building capacity within their milieu. The Marthas (Finnish: Marttaliitto) have a gendered aspect, which is significant. In the 20th century, they along with the Mannerheim League for Child Welfare (Finnish: Mannerheimin Lastensuojeluliitto ry) and Lotta-Svärd ry (catering, clothing and material support group) gave place for women to be involved in society. This triptych embodied the Finnish aspects of Kinder, Küche, Kirche.

⁶ Gibson in his concept of affordances "described what the environment affords animals, mentioning the terrain, shelters, water, fire, objects, tools, other animals, and human displays. ... the complementary of the animal and environment" (Gibson 2014 [1979], 119) which includes "What other persons afford, comprises the whole realm of social significance for human beings" (ibid, 120).

The Marthas have this history, although now they have moved away from being a specifically women's organization with some Martha men's local groups. This broadening is seen with other groups, for example the girlscouts (Finnish: Sinisiskot), which have unisex groups; and the 4H-liitto (partly developed by the Marthas), which started off doing agricultural extension and is now focused on child and youth entrepreneurialism.

Sydänlanka's networking extends beyond interaction with the well-established Marthas to being connected with small funding opportunities for projects. For example, S.T.O.P. development was supported as a project by FINGO (the main Finnish NGO development platform). There was also some support from the Global Resilience team of Global Support by Extinction Rebellion. These bigger organizations start to transcend small group dynamics, and have emergent properties, which makes them act more like networks.

9. Networks

Beyond place-based groups, we can find thematic networks, which may share knowledge across a wider area. One such is the Foraging & Herbologies Network (Pucena 2020), set up by Andrew Paterson as a part of Pixelversity. Pixelversity is a part of the Pixelache "transdisciplinary platform for emerging art, research, design and activism" (Paterson 2016). This Network contains members that experiment and explore different uses of plants within the biocultural landscape. It has been quite food focused, with mushrooms and berries being used in art projects (Pucena 2010) and cottage production (Petz and Haas 2017).

Yet Foraging & Herbologies Network members go beyond culinary arts and question if modern agricultural culture can be replaced and how, with a more direct living from wild food, thus reversing the foraging-farming transition (Weisdorf 2005), to one of farming-foraging or permaculture (Holmgren 2002). The purpose of Pixelversity is to be a platform, which in the case of the Foraging & Herbologies Network, facilitated artistic research practices (Hannula et al. 2005), ecoliteracy (McBride et al. 2013) and practitioners' continuous professional development. However, members mostly take a dilettante approach and do not live self-sustainably from their foraging, this is in common with other foraging groups (Hall 2013).

Attempts to move beyond this amateur approach (Hall 2013) can be seen by looking at the ecovillages within Finland, which are commonly linked with the wider intentional communities and ecovillage movement (Wolf 2009; Farkas 2017). A good example of exploring more widely the different facets such communities try to cover can be seen with the Sammal Village endeavour. Sammal Villages, inspired by design thinking from architectural traditions (Katoppo and Sudradjat 2015), attempts to systemize and cover the priorities in an operationalized way.

Ecovillages are often founded on back to the land sentiments (Halfacree 2006; Jacob 2010) of former urban dwellers who are fleeing the cities. They may be self-contained and somewhat isolationist (Dias et al. 2017). Beyond these intentional communities can be found networked connections, which are influenced by the philosophy of nomadism and mobile cultures with more of a concept of outreach. Sammal Village Technologies is looking at identifying and sharing more widely its findings.

"SAMMAL Village Technologies is created in order to learn, support and develop independent, self-sustainable communities, housing and technologies for the highest life quality on the planet" (Kirjalainen 2017).

Sammal Village Technologies "divide village tech into five domains of 1) Energy and Water, 2) Construction and Accommodation, 3) Food, 4) Social Organisation and 5) Healing. In each domain, we look into production, conservation, distribution and optimisation of the resources, products and services in question.

You are welcome to post, discuss, teach and learn. Our objective is to a) gather information, experience and data from and to a range of ongoing and planned projects around the world, b) create a database for Village Technologies and c) work towards understanding, envisioning and building the most advanced, primitive, fun, sustainable, life-supporting and beautiful Nomadic Communities" (ibid).

There are other networks that NomadTown is connected with which are also looking to spread awareness of new ways of being. One is SKEY – Suomen Kestävän Elämäntavan Yhteisöt ry (The Finnish Association for Sustainable Lifestyles) (Tammenpää et al. 2019), which is an established authority in the development of rurally resilient communities.

SKEY “Promotes a sustainable lifestyle and community.

- Strengthens co-operation between Finnish ecovillages and other communities striving for a sustainable way of life, also internationally. The association is a member of the European ecovillage network GEN-Europe.
- Supports the formation of new ecological housing communities and connects people who are looking for community.
- Follows research and activities that support a sustainable lifestyle and communicate good practices.
- Organizes excursions, gatherings, training, projects, parties and other happenings – for all interested in a sustainable and communal lifestyle!” (SKEY 2019).

Another is SUCH. SUCH is the Sustainable Change Research Network. It was created by Pasi Heikkurinen (2021) from the Helsinki Institute of Sustainability Science at Helsinki University.

“SUCH network contributes to sustainable change with research-based activities. The network is transdisciplinary and it aims to challenge – as well as to propose alternatives to – the unsustainable societies of today. We call for sustainable change at all levels, from the individual to the national and global levels, and at all sectors, from the private to public and third sectors” (SUCH 2019).

A scientist approach follows as “Network members conduct research-based activities with mixed methods without limiting actions to scholarly work. SUCH promotes experimentation with novel forms of communication, favours artistic expression, tells alternative stories, which are not limited to science and encourages participation in public debate. We interact with diverse stakeholders and engage in academic activism” (ibid).

10. Discussion

So, from an independent idea, NomadTown now interacts with associations and goes toward an institutionalization via a norming process that groups go through from a group which “can do many varied things” to a group that is defined by what it does, which limits it to “we do this” as a group. The influence is coming from the rest of the milieu – so for example, formal project management has exercised this power with its structuring requirements.

There are also influences from wider society on what is acceptable re means of natural human habitus, so having children living in NomadTown is made challenging for reasons of schooling. This leads to the disruption of family life – although as a kick-back from this biopower there is also at least one family that has decided to move to NomadTown.

Similarly, the capitalist society, or rather the dispositives around funding and fundraising affect what can happen, or are required for auditing and reporting requirements. Here, the affordances (Gibson 2014 [1979]), which are available are limiting and enabling where things can develop. Sydänlanka has been “rather successful in getting small project monies” according to the main administrator Jussi Sinkkonen, and indeed there have been a variety of projects which have been funded. However, what is funded is decided from outside the organization and perhaps from outside the milieu.

There are exceptions, as some financial resources also came from Extinction Rebellion and that money was mobilizable without a long bureaucratic evaluative process via a small general grants programme from Extinction Rebellion’s Global Support fund. Yet, other funding applications were not successful, and this has affected the work of all the actors mentioned to some extent too.

The Tampere Bushcraft group was unable to gain a yurt offered from a Tampere Universities project initially funded by the KONE Foundation – it was instead given to Tampereen seudun Työllistämisyhdistys Etappi ry an unemployed people resource association, which charges for its erection, thus making less accessible to the wider milieu.

Ossi Kaakko has applied for several grants without success (too little money available for those seeking grants and biases in grant funding are some of the reasons for lack of success) and others he has been prevented from applying for due to not holding a PhD qualification nor formal affiliation to a university. Instead, associations are where he might make a difference.

Is the social ecology of associations a good way of altering our society? The different individuals and small groups are analogous to the tribal existence which humans in small bands evolved modern nation state cultures from (Johnson and Earle 2000). Even though aspects of this Rousseau inspired development story are contested, times of greater gatherings in between small band cultures seem to have existed (Graeber and Wengrow 2018).

There is great flexibility with the ease of setting up associations. The dispositif thus does offer a fairly rapid way to make deep adaption accessible (though it relies on individuals' voluntary participation rather than external financing). Several of those mentioned in this paper have family situations that do create a challenge to living nomadically or lightly on the land in a mobile fashion.

Children need to go to school and must be cared for in certain ways or social services intervene. Aside from this exercise of biopower over family lives, there is a genuine desire for parents to raise their children to function in the wider society and not for them to live off-grid completely outside of it. Ossi, Lasse and Huck have lived successfully off-grid and have all been touched by demands of family.

If we look at Ossi Kakko and Lasse Nordlund, they are both living the reality of small sustainable livelihoods and thus have gained wisdom and tacit knowledge. They have used a variety of media to transfer knowledge of what has been learned by them from those experiences.

Lasse has travelled around and shared his wisdom (Nordlund 2008), thus nomadically influencing others in diverse communities. The SUCH Network has brought his work to a wider university-based international researcher audience. SUCH, due to my RIC activity, is now interacting with NomadTown. Ultimately, the school Lasse is creating (Väänänen 2019) has the potential to actually bring his ideas into reality for real transformation.

Similarly, Ossi has reached out via a variety of methods. There have been online articles in YLE (Rahjola 2011; Siirilä 2018), the national news agency; workshops, and practical events that he has hosted. However, Ossi himself has found that academia and networks such as via Pixelache (Ossi is a part of the Herbologies and Foraging Network) have only gone so far. His focus is now not on Pixelache activist events, but rather working within the community he is based in as a sheep farmer and at a nearby school to encourage an actual lived reality rather than only theory.

The educational milieu is having an effect. Ideas are certainly being transmitted between different groups, for example, Tampere Bushcraft has learnt from individuals in NomadTown via Facebook and vice-versa. Individuals have shared foraging knowledge from the Herbologies and Foraging Networks through activities, not only online (Pucena 2010). Ascribing change to this knowledge, rather than the lived realities within small groups, is more challenging. Key individuals that have transmitted knowledge can be identified.

The educational milieu has provided an environment where some of this knowledge can be shared to build collective wisdom. Interactions with formal education are possible. Here, we can see that university involvement of NomadTown with the University of Jyväskylä, the University of Eastern Finland, based in Joensuu and Pixeliversity (part of Pixelache), has been happening.

SUCH has had a blog post about NomadTown and this has gone through peer revision and is read by members of that network internationally. Similarly, the Bridge47 project report has been shared via FINGO in Finland to the EU (the Directorate-General DEVCO as part of the EU Commission who ultimately provided some funding saw this as global education) and ultimately to the social scientists that are

networking from those connections. And now, this paper is sharing this knowledge with you through an academic peer reviewed publication.

However, informal, and non-formal knowledge transfer has also been happening (see Coombs 1985 over education types). Extinction Rebellion (Elokapina as called in Finland) have held a summer evaluation meeting at NomadTown at which experiential learning of resilient living took place, this is organization and not only individual learning in action. There have been seminars in which Huck has taken part as an expert with other professionals e.g., Ulos-Ut-Out a national outdoor learning conference (Ihantola, 2020) where the ideas around NomadTown could be shared and questioned.

Utopie-Camps (Utopia-Camps) events took place with NomadTown as a participant camp host. The camps were linked with the Leuphana University of Lüneburg and took place in August 2021 to explore concrete futurist ideas in a university led process branded as the Utopie-Sommer (Utopian Summer) (Schmahl, 2021). German speaking scientists attended the camp in NomadTown and other organizations took part as a result of NomadTown networking.

It is not unusual for small intentional communities to fund (at least partially) their existence by courses and seminars and this selling such educational services model could be followed more closely by NomadTown. A mixed model of funded and pro bono actions is a viable choice (viable in terms of financial capital, but for knowledge and social capital, it is less clear if it has an effective outreach and transformative potential).

In summary, it can be seen that NomadTown does have some transformative effects, but looking long-term at others (SUCH, SKEY, SAMMAL Villages) who are trying to influence society for a resilient transformation, it is the use of vectors via larger networks that are scaling. The individuals who are successfully using those networks are acting as nodes for educational purposes.

For NomadTown to be effective, it has to leverage those networks and use those channels which are part of the educational milieu. As an organization, Sydänlanka has built capacity to do that to some extent via NomadTown and its other projects. Even though it is a relatively new association the continuity is being considered. Sydänlanka has made use of volunteers, funding for workers and more recently taken advantage of the työharjoittelu⁷ (on the job tryout) and palkkatuki (supported salary) schemes running in Finland. This development is also developing individuals as nodes who can carry the ideas further.

This method of development is also something that is very much part of the culture of NomadTown. It is called Coyote Mentoring. A mentor we can regard as someone with great experience who instructs someone broadly around that subject area. They do have prior lived experience, the affective (values) and cognitive (knowledge) domains along with the psychomotive domain (skills) and can focus on bringing experiential awareness to someone that does not have that experience. In peer mentoring, the peers share some feature(s) of commonality, but not the same lived experience.

The concept of “coyote mentoring” is popular within the context of wild pedagogy (Jickling et al. 2018). The mentored is ideally not aware of a mentoring relationship. Coyote mentoring happens by listening and asking relevant level questions. By level I follow Bloom and Krathwohl (2002) and Costa (1991) in thinking of lower-level questions being factual recall (cognitive domain), then progressing to the more conceptual, which require a higher level of thinking and broaden into more, higher levels in the affective and psychomotive domains too.

Coyote mentoring is aimed at supporting the mentee's own interests and strengthening their relationship, curiosity and passion for the rest of nature. The name comes from the Wilderness Awareness School in the USA and is described thus:

⁷ These are 2 schemes run in Finland by the TE Keskus (Training and Enterprise Centre – which is effectively the job centre provision in Finland for encouraging employment. In theory, the schemes are quite good, the työharjoittelu (job tryout should include on the job training and a 3–6-month placement in an employment situation for a little more money than workless benefits) and the palkkatuki (supported salary) should pay someone a basic salary to do the job as an employed person, again with the implication they will learn how to do the job. In praxis, in many cases the training element and even learning element is missing.

“With Coyote Mentoring, your deeper purpose unfolds, not all that different from the Trickster stories. To the people you serve, it may seem like nothing but running through woods, playing games, and listening to stories. An underlying intention they never realize lies beneath this surface evidence. By subtly and invisibly using Child Passions to get people to practice Core Routines and so read the Book of Nature, you engage them in learning without them ever knowing it. You are running an "Invisible School". (Young, et al. 2010, 15).

That invisible school runs at NomadTown, in Tampere Bushcraft Group and the other actors where people are living experiences rather than formally learning them. For example, Piknik Frequency ry that runs Pixelache, which is a platform, does not hold formal courses to train cultural producers how to put on events, rather cultural producers run events and participate in them and thus learn in an apprenticeship or peer learning type arrangement. This extends to an open process of including potential producers.

For example, Norpas Festival had Huck take part in a production of content, while some others were able to take part in the festival from Pixelache circles with an awareness of their financial situation allowing free access. Some of those same individuals from Norpas and Pixelache were able to take part in an event which members of the Finnish Bioart Society participated in.

Key nodes or individuals can be identified who are encouraging this culture of sharing and using these resources. For example, the yurt mentioned above has been used by Andrew Paterson, after producing the Pixelache Festival 2021 #BURN___ as part of a project on nomadic tourism run by Hirvitalo while moving around Finland and during that travel was able to discuss this paper and other aspects of ecological sustainability with me. I in turn ran a workshop on resilience at #BURN___.

Ultimately, at the metalevel, I identify that, crucially, organizational learning, manifesting as network learning, which is enabled by the adaptive mind of key individuals, who are nodes or even hubs, within that network is taking place.

11. Conclusion

While undoubtedly, the educational milieu is having an effect, on individuals and associations through networks, a question remains about how effective it is at transformation. That how transformation is considered by transition towns (Transition Network 2019). They are taking existing settlements and mapping to a point and then engaging in cultural scaffolding (Wimsatt and Griesemer 2007; Caporael et al. 2014), which manifests as community-based educational scaffolding (Howe 2013; Scott-Cato and Myers 2011) called “action learning” (Morley and Trist 1993; Rehm 2002), social technologies and co-creation within their cultural milieus to make culturally appropriate changes (Scott-Cato and Hillier 2010).

How transition towns interact with their surrounding cultures is relevant if we want to explore how NomadTown is interacting with its surrounding culture in a similar place-based transformation (could NomadTown better transform rural rather than urban settlements?). An educational process, necessary for transformation within a (place-based) community, takes place within both:

- a. an affected community (the members of which are transformed somehow); and
- b. the interactions with its surrounding culture’s institutional arrangements (as a facilitating, enabling or at least permissively tolerant medium), if the knowledge is to move from potential to action.

There is a slight difference in purpose, which means that NomadTown cannot be termed a transition town. That is transition towns are more akin to retrofitting, and thus not fundamentally creating de novo a transition society; whereas NomadTown takes the more radical position of creating in a more missionary way a new utopian society. Transition towns are also fixed in place whereas NomadTown, even though the resilience hub aspect is more important for its identity than the nomadic potential, could in conception move location.

Transition towns network and connect to each other like hyphae or mycorrhizae in the forest and create a network. NomadTown is not yet connecting to other NomadTowns or other rural resilience hubs (which do not exist in Finland yet – though in the Utopie-Camp, we concluded there could realistically be about

5 others in Finland) in this way. The milieu, NomadTown is part of, begins with preppers, considers some pioneering individuals, networking, and vectors in that milieu, and ends with ecovillages.

Ecovillages are perhaps not so much about preparedness and avoiding disasters (which resilience hubs are to a greater extent), but about a sustainable lifestyle generally. This reveals the movement from individual agency in dealing with an emergency situation (a type 1 emergency) to transformational action of the whole society (on response to a type 2 emergency). Thus, there is the creation of a new dispositive within the bioregion. All these strands form the milieu, a small community such as NomadTown finds itself in.

NomadTown is connecting though other networks in a symbiotic relationship, it does connect to survivalist groups, it does connect to ecovillages and significantly it does connect to educational institutions. There are connections to the University of East Finland (Joensuu campus presentations), University of Jyväskylä (this paper), Helsinki University (via the SUCH Network) and several people connected to opistos too.

Yet there are poor connections for NomadTown in terms of industry and government and the university aspect could be made more explicit. These are core sectors in the helix models. Perhaps connecting in partnership with others in the milieu, notably FINGO and the Marthas, could operationalize this more effectively. It remains to be seen how transformative the current educative milieu will prove to be in making the great transition (Petz 2019; SUCH 2019) needed to deal with climate change. The networks which NomadTown is a part of are crucial for effective change to be achieved.

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