Education for sustainability through communities of practice. Information, meaning, identity, and the building of a "Learning Alliance" in the Irish Ecovillage of Cloughjordan

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Abstract

At a time in which the global effects of climate change and environmental degradation are becoming more and more tangible, grassroots initiatives like ecovillages are actively contributing to the development of new models of socio-technical and socio-economic innovation for sustainability. An excellent example in this respect is represented by the Irish Ecovillage of Cloughjordan (CEV), that over the last twenty years has developed a successful educational offer. The recently launched Learning Alliance project aims to strengthen CEV's transformative impact on society at multiple scales by promoting stronger synergies between its educators. Yet it must face the challenge to foster collaboration and information sharing between educational activities grown to be fundamentally autonomous from each other. Aiming to identify the factors that might encourage the development of such Alliance from a learning and informational standpoint, this ethnographically informed study relies primarily on Wenger's (1998) communities of practice theory. Based on the use of qualitative methods such as field notes and open-ended interviews, the findings reveal that the current lack of collaboration and information sharing between educators is relatable to different understandings and meanings about education that are amplified by some power asymmetries. If an Alliance is to be built, engagement and allegiance need to be promoted by "opening the negotiation of meaning" in the first place – that is, by gradually converging on equal grounds towards a shared vision of education for sustainability. It is mostly at this level that information in social practice (Cox, 2012) could prove effective to support the Alliance. As the first study ever conducted on CEV's practices of education for sustainability, this dissertation adds to the growing literature on ecovillages and sustainable transition studies whilst offering new insights into the relationship between information, meaning, and identity in practice.

Statement of original authorship

I hereby certify that the submitted work is my own work, was completed while registered as a candidate for the degree stated on the Title Page, and I have not obtained a degree elsewhere on the basis of the research presented in this submitted work.

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Abbreviations

CEV	Cloughjordan Ecovillage
CoPs	Communities of Practice
FabLab	Fabrication Laboratory
FFL	Food For Life (CEV's enterprise)
GEN	Global Ecovillage Network
LIS	Library and Information Studies
SPI	Sustainable Project Ireland Ltd (educational charity)
VRE	Village Research & Education (SPI's group focused on education)
VSM	Viable System Model (organisational system)

*To the memory of
physician and psychologist
Renzo Canestrari (1924-2017).
A beloved friend and mentor.*

Introduction

The societies of the future will be essentially local.
David Fleming (2016)

Over the last thirty years, a world emerging from the Cold War has witnessed the stark acceleration of two not unrelated phenomena: economic globalisation on the one hand, and environmental degradation (Steffen et al., 2018) on the other. While the massive 2008 financial crash exposed the risks and excesses of the former, the climate crisis has clearly become the epitome of the latter.

The gradual, reformistic approaches to climate change that have been adopted by most governments and institutions across the world have produced contrasting results. Some developed countries have successfully started to curb their greenhouse gas emissions, and more specific issues such as the ozone hole have been effectively addressed; yet the situation appears to be worsening at a global scale, as shown by the constant increase of the average global temperature (Masson-Delmotte, V. & IPCC, 2022). Most scientists also maintain that climate change is not the only "planetary boundary" to have been breached so far: loss of biodiversity, fertilizer use, and land conversion are other concrete menaces to the stability of our planet's life-support system (Rockström & Klum, 2015). Reforms and international cooperation are essential, but the urgency and scale of the issues at stake demand the ability to imagine and experiment social, economic, and technical innovations to be adopted and combined at multiple scales (Mann, 2021; Ostrom, 2014).

In a world where the most radical forms of activism (like anti-globalism) are being weakened by various forms of corporatization, and political dissent is often repressed and marginalized (Dauvergne & LeBaron, 2014), the importance of grassroots initiatives like ecovillages is becoming more and more evident. Far from the 1970s model of the utopistic, isolated commune, most of the ecovillages

flourished since the 1990s operate as centres of socio-technical/economic innovation and education for sustainability (Andreas, 2013; Dias et al., 2017). As more and more authoritative sources of learning (Roysen & Cruz, 2020; Seyfang & Smith, 2007; Singh et al., 2019), these communities represent free spaces where new ideas can be tested and spread (Dawson, 2006).

Founded in County Tipperary back in 1999, the multi-awarded Irish Ecovillage of Cloughjordan (CEV henceforth) is an excellent example of how a small rural community can be innovative enough to produce a significant impact on the transition to sustainability at local, national, and global scales (Kirby, 2020).

The Republic of Ireland and the Ecovillage of Cloughjordan

In terms of environmental action, the Republic of Ireland has sometimes proved to be both pioneering and progressive, as in the case of the 2019 Climate Action Plan (Fahy, 2020). The first country in the world to have divested from fossil fuels, and the second one to have declared a climate emergency, Ireland has also banned onshore fracking (Fahy, 2020). Even the citizens' viewpoint on climate change policy has been taken into account: a temporary Citizens' Assembly – one of the first examples of its kind in the world – provided a set of recommendations to the Irish government back in 2018 (Fahy, 2020). In other respects, however, Ireland's record on sustainability has been disappointing. Intensive agricultural practices, unambitious and sometimes regressive policies, and a general lack of urgency across party politics have seriously compromised the country's ability to curb its carbon emissions (Fahy, 2020).

CEV has been able to show Ireland that a significant reduction in carbon emissions is, nonetheless, an achievable goal. According to a study commissioned by the ecovillage to the Tipperary Energy Agency in 2014, the average ecovillager's ecological footprint (EF) of 2 global hectares (gHa) "compares favourably to an EF of between 2.9 and 4.3 for other Irish towns and an EF of 5.2 for the average Irish person, as measured by the Global Footprint Network" (Kirby, 2020, p. 291).

Thanks to a continuous socio-technical and socio-economic experimentation, CEV stands out as a living, tangible, example of the key importance of promoting

innovations such as green building, social entrepreneurship, and a culture of food based on organic, small-scale production (Papadimitropoulos, 2018).

Today, the ecovillage is part of an extensive network of actors and partners which includes the Irish Environmental Network, ECOLISE (a no-profit association for European community-led initiatives on climate change and sustainability), and the Global Ecovillage Network. Yet it's only the very small group of CEV's educators (just 10 in 130 residents) to be at the forefront of the innovations designed and developed here, and it is mostly their responsibility to spread them outside of the ecovillage as much as they can. Since CEV provides education through multiple, autonomous, subjects – a working group, an NGO, and two enterprises – creating stronger synergies between them would be important to make CEV's educational impact even more significant. However, the limited resources available, and the fact that most educators are more focused on their specific activities than on the ecovillage as a whole, make this prospect a remarkable challenge.

It is during the new development phase launched in 2020 – one aiming to transform CEV into "a leading campus for education in all aspects of sustainability" (Kirby, 2020, p. 300) – that such issue has come to the fore.

Research problem, purpose, research questions

As the educators themselves acknowledge, CEV's current offer is successful but fragmented in two principal ways. On the one hand, information sharing for work purposes and active collaboration on common projects are only occasional. On the other hand, the significant autonomy with which the educators carry out their activities makes it difficult to develop an overarching vision of how to improve CEV's educational impact on the mainstream.

The Learning Alliance project is a long-term initiative launched by VRE (*Village Research & Education*) – the group formally invested with the power to articulate and pursue CEV's educational goals – to promote stronger internal ties and synergies between educators. Though the opportunity to create such an Alliance had been already discussed in previous occasions, its formal adoption in May 2021 was

encouraged not only by the demanding goals of the new development phase (2021-25), but also by my own research work. When I took part in the online January 2021 VRE meeting, and the idea of launching the project was formally raised for the first time, I saw the Alliance as an opportunity to focus on an aspect of great relevance for the future of the ecovillage.

Since the beginning of my work in Cloughjordan in early 2020, I had been interested in exploring the information-related activities of the educators from a practice-based perspective. I had identified Wenger's (1998) theory of communities of practice (CoPs) as a powerful framework to connect information to learning and education, but in the beginning my idea was to consider the learning experience from the standpoint of CEV's audiences. The Covid-19 pandemic and the lockdowns had severely disrupted both my fieldwork and CEV's activities throughout 2020, and the Learning Alliance project made me realize that focusing on the educators rather than on their audiences could be equally insightful. The term "Learning Alliance", after all, reflects the awareness that educators are also learners, and that the more they learn together, the more they can make a difference. When I expressed my interest in the project during that January meeting, I suggested that CoPs theory (Wenger, 1998), as a social theory of learning, could be used to understand how to foster closer and more regular forms of collaboration and information sharing between the educators. VRE's members acknowledged that my work could be helpful (one of them was already familiar with the concept of CoPs), and I was granted the permission to discuss the issue with all the educators in the community.

This ethnographically informed study relies on practice theories to identify the factors that might encourage the development of a Learning Alliance in the Ecovillage of Cloughjordan. A set of qualitative methods – namely, participant observation and semi-structured, open-ended interviews – have been adopted to address the following questions:

- What are the main characteristics of CEV's practices of education for sustainability?

- How should such practices change to jointly express some commonality (Wenger, 1998) in a Learning Alliance?
- How could information be used to support this change?

A brief outline of this study

The historical and cultural background necessary to understand the role and importance of ecovillages is outlined in **Chapter 1**. Here, the relevance gained by these communities as centres of education and socio-technical innovation (Schäfer et al., 2018) is examined in relation to the influence that seminal ideas such as sustainable development and ecomodernism have had on policymakers and scholars since the late 1980s. It is argued, in particular, that the increasing attention paid to ecovillages across the world can be better understood by considering (a) their ability to recover the historical function of the commons – sharing knowledge about how to manage scarce resources sustainably (Patel, 2009) – and (b) their capacity to collaborate with other institutional and non-institutional actors to generate different benefits at multiple scales (Ostrom, 2014).

Chapter 2 introduces and justifies the theoretical framework adopted for this study. By combining Wenger's (1998) CoPs theory with Schatzki's (2002) conceptualization of practice, this framework allows to describe how CEV's educational practice are currently organised, and to understand how they could converge into a new Alliance. A brief overview of practice theories and their implications is provided to explain the ontological and epistemological choices lying behind this approach.

The review of the Library and Information Science (LIS) literature on collaboration, information sharing, and CoPs is at the core of **Chapter 3**, which also considers how sustainability-related issues have been approached from a LIS and CoPs standpoint. This chapter considers the evolution of the information behaviour literature to bring some conceptual clarity to the distinction between "information behaviour" and "information practice". Finally, it introduces "information in social

practice" (Cox, 2012) as a more effective way to suit CoPs theory's (Wenger, 1998) view of information.

Chapter 4 justifies the methodological choices made to address the research questions, offers an overview of the main stages of my fieldwork, and presents a detailed account of how data have been collected, coded, and analysed. The challenges posed by the need to operationalize CoPs theory (how do we come to focus on the aspects of practice relevant to theory?) have been mostly overcome by relying on pilot-test interviews and Nicolini's (2012) theory-method package. The latter is a "toolkit" useful to identify the theories and methods that can be used (and possibly combined) to study specific areas of practice through a set of "sensitizing" questions that highlight what is essential to see and describe.

In Chapter 5, the history of CEV is contextualized and summarized through the goals, ideas, achievements, and challenges that have shaped the project over the years. The principles of permaculture and systems thinking (Capra, 1998) permeating the ecovillage, the optimism and confidence dominating the stunning economic growth of Ireland in the late 1990s and early 2000s, and the long-term consequences of the financial crash of 2008 are key to a full understanding of CEV's successes and failures – as well as of its extraordinary resilience. The last part of this chapter guides the reader across the areas of the ecovillage where its educational activities take place.

The findings presented in Chapter 6 depict the practices of education for sustainability ordinarily taking place in CEV through the lens of Schatzki's (2002) framework. The principal elements that "hang together" (Nicolini, 2012) to perform and perpetuate such practices over time (sayings, doings, meanings, rules, goals, artefacts) are described by focusing on the single educators as well as on the organisations, enterprises, and places where they habitually work. The present asymmetries in collaboration and information sharing are brought to the fore, and some attention is also devoted to the issues of autonomy and control.

The Learning Alliance project represents the main concern of **Chapter 7**, that considers meaning negotiation and identity formation (Wenger, 1998) to explore the degree to which CEV's educational practices might be able to perform commonality – both singularly and in combination. While the negotiation of meaning (through its dimensions of participation and reification) sheds light on the advantages and disadvantages of the current situation, identity formation (with its focus on imagination, engagement, and alignment) provides the conceptual tools to explore the feasibility of the Alliance. The final section of this chapter elaborates on the role that information in social practice could play to support the Alliance.

Chapter 8 discusses the findings of this study in relation to its theoretical framework: particular emphasis is given to the significant implications of changing in practice, whilst information sharing is re-examined from the standpoint of information in social practice. The second part of the chapter explains the relevance of this thesis, whose theoretical and practical limitations are pointed out in the last section.

Finally, the **Conclusion** presents a reflexive overview of this study and offers some recommendations for further research.

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Without the full support and cooperation of CEV's educators, this work would have never been possible. I am extremely grateful for their kindness and help, even more essential during the very difficult times of the Covid-19 pandemic.

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This dissertation is dedicated to the memory of physician and psychologist Renzo Canestrari – a social innovator, a dear friend, and a great mentor. Some of the lessons I've learnt from him lie at the very foundations of this study.

Chapter 1

Sustainability and ecovillages:
a matter of scale

1.1 Introduction

1.2 Sustainable development and ecological modernization

1.3 The importance of scale for sustainability

1.4 Ecovillages: features, challenges, education, innovation

1.1 Introduction

As humankind enters the "Anthropocene", a new geological epoch in which ecological problems have become potentially catastrophic because of human action[1], it is more and more evident that relying exclusively on technical solutions is not sufficient anymore (Kirby, 2020). The scale of the transformations required makes necessary to address these issues by considering also "the values, ethics, attitudes and behaviours that underpin societies" (Roy et al., 2018, p. 475).

As reflexive environments where cooperation and sharing are key values, and learning is a social and transformative experience, ecovillages can help to create new approaches towards sustainability where the social and the technical-economic dimensions are fruitfully combined (Kirby, 2020).

The purpose of this chapter is, on the one hand, to describe the historical background necessary to understand the nature and relevance of ecovillages; on the

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[1] It was the atmospheric chemist Paul Crutzen (Nobel Prize in 1995) to popularize the idea of the Anthropocene more than 20 years ago. Following the Holocene, where "[a]ll of what is conventionally understood as human history (…) has taken place", the Anthropocene features humankind as "the most powerful influence on global ecology" (McNeill & Engelke, 2014, p. 1).

other, to explain how these communities can actively support the transition to a more sustainable world.

While section 1.2 introduces the seminal concepts of sustainable development and ecological modernization, section 1.3 shifts the attention from the global to the local scale to describe the historical importance of the commons, the implications of a "polycentric" approach to ecological issues, and the role played by intentional communities.

In the second part of this chapter (section 1.4), I summarize the history and evolution of ecovillages, point out their strengths and weaknesses, and address the role they can play as poles of education and socio-technical innovation. Ecovillages often combine the moderate and the radical sides of the environmental movement: they are protected spaces where innovative ideas can flourish, but they are also tied to the mainstream to which they aim to spread their innovations; they can help governments in a combined effort against climate change, but they must also keep pushing the boundaries beyond what is normally done at the institutional level. Such a duality is very important to understand many of the tensions often affecting these communities.

1.2 Sustainable development and ecological modernization

The concept of "sustainable development", formally introduced in the early 1970s (Bolis et al., 2014), became popular only after the publication of the UN's report *Our Common Future* – mostly known as the "Brundtland Report"[2] – in 1987.

Defined as the "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland, 1987, p. 40), this concept has helped to establish a set of highly influential principles and ideas including (but not limited to) the central role acknowledged to science and technology; the assumption that economic growth and

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[2] The Report's chair was former Norwegian Prime Minister Gro Harlem Brundtland.

technological advancement pave the way to development, social inclusion, and environmental preservation; the correlation between poverty and environmental degradation; the primary importance of international cooperation; the achievement of intergenerational justice; the anthropocentric assumption that the natural world's primary function is to serve the needs of the human species (Berkhout et al., 2003; Weber & Weber, 2020; Worster, 1993).

Although it has been argued that the Brundtland Report implies a trade-off between sustainable development and economic growth (Langhelle, 1999), it is "ecological modernization" to have eventually prevailed (Vallance et al., 2011; Wamsler, 2020). As a strategy of sustainable development, ecological modernization argues that all core systems and institutions of modern capitalistic societies can be reformed to overcome the current environmental predicament (Langhelle, 2000; Mastrangelo & Aguiar, 2019). On the one hand, apocalyptic visions of the future are explicitly rejected; on the other, economic growth, urbanization, technological advancement, and closer forms of institutional cooperation become the key instruments to catalyse systemic reforms rather than drastic political and economic changes (Fahy, 2020). In simpler words, economic growth is hardly seen as a potential obstacle to sustainable development, and the popularity gained by ecological modernization among scholars and policymakers suggests that such idea might have been definitely abandoned.

Both sustainable development and ecological modernization have been widely criticized over the years. The former for being vague, difficult to implement, and even contradictory (Klarin, 2018; Redclift, 1987; Rist, 2019); the latter for being "too optimistic about new technologies, too reformist in the face of urgent problems, too focused on the effects, rather than the causes, of unsustainable development, too uncritical of capitalism (…)" (Fahy, 2020, p. 134).

Yet, as ecological discourses of global concern, they have been – and still are – deeply influential (Boyer et al., 2016). This is shown, for example, by the fact that the assumption of "perpetual growth" has seldom been questioned by policymakers

and institutions[3] (Ghosh, 2016); by the emphasis that Western governments have traditionally put on the adoption, on the part of citizens, of more environmentally-friendly behaviours[4] (Fahy, 2020; Shove, 2010); or by the priority often given to technological solutions over socio-cultural change in many political and scholarly discourses (Carvalho et al., 2017).

1.3 The importance of scale for sustainability

For all their popularity, sustainable development and ecomodernism are only one of the many faces of the environmental movement, which includes much more radical positions such as anti-corporatists, green localists, and eco-socialists (Wall, 2005). Green radicals are usually severe critics of contemporary capitalism, whose tenets and implications are challenged in ways that neither sustainable development nor ecomodernism would ever consider. The analysis conducted by economic sociologist Karl Polanyi in *The great transformation* (first published in 1944) is helpful to understand some of the key points of this critique (Fleming, 2016).

Polanyi (2001) focuses his attention on the rise of capitalistic societies in the West and, more precisely, on the historical process largely driven by the Industrial Revolution started in England in the late eighteenth century. According to him, this extraordinary process led the market to replace "the social capital of reciprocal obligation, loyalties, authority structures, culture and traditions with exchange, price and the impersonal principles of economics" (Fleming, 2016, p. 179); and it changed social arrangements so dramatically that today "it is impossible to think of them in any other way" (Patel, 2009, p. 18). An entire society came to legitimize and license radical, unprecedented changes – namely, the commodification of work, land, and money – because, for the first time in human history, the market and its needs took centre stage: it was the use of very expensive machines, demanding to upscale

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[3] For instance, economic growth is taken for granted even in the 2015 Paris Agreement on climate change (Ghosh, 2016).
[4] See section 1.4.2.

production and make it as continuous as possible to recover the massive investments that were needed, to lead the way (Polanyi, 2001). During the nineteenth century, when liberal institutions were created to suit the needs of the market economy in the first place, economy and society came thus to be part of the very same set of processes (Polanyi, 2001). As explained by Patel (2009),

> Polanyi suggests that capitalism needs society's institutions in a very particular way. In order for markets to work, society needs to license the turning of things into commodities that can be bought and sold within the economy. (…) the transformation not only changed society, it also changed *us*, by changing the way we see the world and our place in it. (p. 18)

Today, as observed by Harvey (2000), a "sort of hegemonic economistic-engineering discourse" has come to "dominate discussion of environmental questions" precisely because "[c]ommodifying everything and subjecting almost all transactions (including those connected to the production of knowledge) to the singular logic of commercial profitability and the cost-benefit calculus" represent "a dominant way of thinking" (p. 222). In this regard, Patel (2009) suggests that the separation of economy and society is only a fictious idea needed to keep the "myth" of the self-regulating market alive and promote its further spreading.

1.3.1 The social value of the commons

The process described by Polanyi (2001) is deeply intertwined with another important historical process. Since the Late Middle Ages, peasants were evicted from the "commons", sustainable self-managed systems based on the common property of natural resources (most often land and water) which were gradually replaced by private property (Patel, 2009).

Across the world, the commons – a term used to identify both the land and the ways people allocate the resources coming from that land – have represented for many centuries the life-support system of the poorest by providing food, water, fuel, and medicinal plants: more than places, they represent a way of valuing and share the world around us that the great transformation has mostly destroyed (Patel, 2009).

Their historical process of enclosure transformed common land into a commodity and forced most peasants to move to towns and cities to sell their labour (Patel, 2009). The social rules governing land and work changed dramatically, and with the rise of the industrial age commonality – that is to say, traditional villages and farm communities – lost its dominance to societal institutions (Kunze, 2012).

Yet, when American microbiologist Garrett Hardin coined the term "tragedy of the commons" in his 1968 seminal paper, he was not referring to such long-term consequences at all. Rather, he was considering what would happen if the commons were inhabited by herders behaving in accordance with the rules of *homo economicus*: since each of them, he argued, would be motivated to act as a free rider by adding more and more animals to maximize their personal gain, in the long term the commons would suffer from overgrazing and deteriorate (Hardin, 1968). While the benefit is direct, individual, and immediate, the costs are inevitably shared but delayed.

By becoming "one of the most widely cited think-pieces in the twentieth century" (Patel, 2009, p. 93) in spite of (or because of) its ignorance of history, this Hobbesian scenario has certainly not helped to understand the historical function of the commons and the fundamental reasons to preserve them. The commons must not be romanticized: far from being a model of fairness and equality, they often witnessed clashes between serfs and their lords (Patel, 2009). However, they were also spaces where "the poor had won some victories" (Patel, 2009, p. 99). Even Adam Smith pointed out the damage that the spread of private property was doing to the commons (Patel, 2009); yet, while he was writing, the process of enclosure in England was almost over and the Industrial Revolution was taking momentum, with former peasants becoming its proletarian backbone.

Throughout the nineteenth and twentieth centuries, both colonialism and globalisation accelerated privatization and commodification across the world. Today, the situation doesn't look much better:

> Generally, commons systems aren't being supported in the twenty-first century – they're being dismantled. As they disappear, we lose millennia of accumulated

knowledge about how to manage scarce resources sustainably, both in terms of the harvesting technology to keep the resources abundant and also the social systems necessary to ensure that no one takes more than his or her fair share. (…) The enclosure of the commons has destroyed the rich networks of knowledge that once helped guide the way we valued the world. (Patel, 2009, p. 107)

Such a loss of accumulated knowledge becomes even more tangible in its implications when one considers the results of Elinor Ostrom's[5] extensive empirical research on how local governance deal with environmental conservation across the globe.

1.3.2 The polycentric approach to climate change

Ostrom's (1990) ground-breaking work span along three decades (1960s-1980s), and its results confute the long-held assumption that successful collective action is not possible, at a local scale, in absence of externally imposed regulations (Hardin, 1968; Olson, 1965). Moving away from any pre-conception about the spontaneous success or failure of local groups (Bergstrom, 2010), Ostrom (2010, 2014) argues that moderate-to-high levels of cooperation are the *expected* outcome whenever such forms of governance meet conditions like mutual trust and reciprocity.

The implications of this conclusion are quite relevant: if local collective action does not require external regulators to be effective, then diverse actors can create multiple benefits at different scales through decision-making centres formally *independent* of each other. This is the core idea of Ostrom's "polycentric model", originally developed in relation to the public sector (Ostrom et al., 1961). "An important lesson", she writes, "is that simply recommending a single governmental unit to solve global collective action problems – because of global impacts – needs to be seriously rethought and the important role of smaller-scale effects recognized" (Ostrom, 2014, p. 121). Supported by climate, social, and political scientists

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[5] The late American political economist Elinor Ostrom (1933-2012) was awarded the Nobel Prize in Economics in 2009 for her study of numerous successful cases of self-managed common pool resources (such as forests, pastures, irrigation fields, and fisheries).

(Eckersley, 2020; Galaz et al., 2012; Steffen et al., 2011), this approach was explicitly advocated by Ostrom (2014) to tackle climate change. The commitment necessary to find new ways of reducing carbon emissions, she claimed, can be built more easily if small-to medium-scale governance units intervene *together* with national and global actors.

Ostrom's arguments offered further support to the seminal ideas of scholars like E.F. Schumacher and Murray Bookchin, who back in the 1970s and early 1980s had pointed out the need to restructure socio-economic and political life around smaller production and consumption systems (Whitehead, 2007). From the 1990s onwards, institutional initiatives such as UN's action plan *Agenda 21* (1992) – pointing out the need "to move towards more indigenous-based and locally sensitive strategies" (Whitehead, 2007, p. 191) – have contributed to shift the attention of policymakers from global to multi-scale operativity; from government to governance[6]; and from a formal, legalistic (top-down) process to a more open and participatory (bottom-up) response (Berkhout et al., 2003; Vogler & Jordan, 2003).

Only within such transformations is it possible to fully appreciate the importance of Ostrom's empirical research, and the fundamental contribution it gave to the idea that local self-managed systems co-participating in multi-scale collective action on environmental issues can offer a tangible contribution to sustainability. It is in this light that the importance of intentional communities must be understood.

1.3.3 The local context: intentional communities

What observed so far about the role of the commons and polycentrism points to a view of sustainability[7] as a locally-rooted approach "permeating almost all aspects of

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[6] While the word "government" identifies "the authoritative exercise of power by the organs of a sovereign state" (Vogler & Jordan, 2003, p. 144), governance represents "a pattern or structure that emerges in socio-political systems as a 'common' result or outcome of the interacting intervention efforts of all the involved actors" (Kooiman, 1993, p. 4, quoted in Vogler & Jordan, 2003, p. 143).

[7] The term "sustainability", today widely used by scholars and policymakers, "originated as an exclusively descriptive concept in agricultural sciences and ecology in the middle twentieth century" (Boyer et al., 2016, p. 1).

life and profoundly dependent on the specifics of local contexts" – a view according to which the economic, environmental, and social dimensions are inseparable (Boyer et al., 2016, p. 13).

The scholarship supporting this view is very critical of the "one-size-fits-all" strategies envisioned by international development agencies, and considers local knowledge and grassroots initiatives as essential guides for policy and action (Boyer et al., 2016; Litfin, 2013; Scruton, 2012; Singh et al., 2019). When Rice et al. (2015) point out that incorporating non-academic perspectives in academic research would be helpful to question the dominant technocratic discourse on sustainability and experiment with new ideas, they refer to the kind of knowledge that local projects such as intentional communities can provide.

Contemporary intentional communities, whose origins can be traced back to the age of Pythagoras, are "initiatives generally undertaken by small groups of private citizens to create micro- or small-scale settlements (…) largely independent of governmental support and often seeking to create visionary, alternative modes of community" (Dawson, 2006, p. 15). Within a global context where environmental activism is becoming more and more domesticated and commodified through the corporatization of NGOs and the marginalization of dissent (Dauvergne & LeBaron, 2014), intentional communities can contribute to re-build, preserve, and enrich the local knowledge necessary to manage scarce resources more sustainably. They can create protected spaces within which radical ideas alternative to the mainstream can be freely developed, discussed, and experimented. And they can help to find some common ground between ecomodernist ideas and anti-capitalist instances.

Intentional communities have been the object of increasing interest and analysis from policymakers and academics since the 2010s (Schäfer et al., 2018). The scientific and social relevance they have gained by virtue of "their *concrete* experiences with the construction of societal alternatives" (Dias et al., 2017, p. 90) has been documented in a number of studies – from ethnographies describing their

social richness and complexity (Litfin, 2013) to quantitative research proving their ability to curb significantly greenhouse gases emissions (Landholm et al., 2018).

It is therefore essential to distinguish these initiatives from the "back-to-nature" and often isolated communes of the 1960-70s (Kunze, 2012):

- They often network beyond their local and national boundaries.

- Their goal is "to create unity in diversity as a creative richness of mutual benefit with a core value of commonality" (p. 57) – not to diffuse a specific system of common belief.

- Since they try to embody, experiment, and spread an alternative vision of society, such communities can be seen as "living laboratories" (Litfin, 2013) constantly testing multiple solutions at the same time: from community management to small-scale economies, from eco-housing to conflict resolution and energy efficiency.

- Far from being rigid and self-indulgent, the utopianism on which the most recent intentional communities are founded tends to be self-reflective and transformative to adapt to everchanging conditions. At a learning level, the type of practical education on social competences they provide is thus an opportunity often "lacking in the education systems of individualized societies" (p. 66).

The challenges posed by the peculiar nature and goals of intentional communities cannot be underestimated: about 90 percent of new community attempts fail in the first five years (Kirby, 2020; Litfin, 2013). Although the features mentioned above are "idealistic" in the sense that they do not align with the cultural norms and values dominant in Western capitalist societies, it might be misleading to think that it is idealism per se to justify such a high rate of failure. Rather, the real causes are more concrete and ultimately relatable to the huge effort required to build and maintain such communities over time. The social price to pay can be very high in terms of loss of cohesion, for example. In the case of ecovillages, Karen Litfin (2013) argues that the breakdown of social trust tops the list of reasons for why these initiatives fail:

during her ethnographic work in fourteen projects across the world, she "continually heard that human relationships were both the most challenging and most rewarding aspect of community life" (p. 76). This tension is a good starting point to grasp the complex nature of such communities.

1.4 Ecovillages: features, challenges, education, innovation

The specific term "ecovillage", introduced for the first time by Diane and Robert Gilman at a 1991 conference held in Denmark (Litfin, 2013), refers to

> a semi-self-sufficient, human-scale, cooperative, sustainable settlement that integrates all the primary facets of life – sociality, alternative economics, food production, energy, shelter, recreation, and manufacturing – with a sensitivity towards the environment and its natural cycles. (Parr, 2012, p. 62)

This is only one of the many possible definitions suggested. Ecovillages – either 'high-tech' or 'low-tech', spiritual or secular, income-sharing communes or middle-class enclaves (Litfin, 2013) – are so heterogeneous that it is virtually impossible to describe one single model representing all cases (Dias et al., 2017). Yet some common features can be identified from a growing, though sparse, body of literature firstly emerged in the early 2000s (Nathan, 2012).

Ecovillages usually rely on principles such as local sovereignty, non-hierarchical governance, self-reliance, sustainability, and meaningful human relationships as the vision of a "better world" which such initiatives attempt to embody and enact (Campos, 2013; Dawson, 2006). Their physical, social, and conceptual spaces are meant to foster alternative ways of viewing the local and the global through a set of strategies including earth restoration practices, social inclusion, and participatory governance (Dawson, 2006; Mychajluk, 2017). It is in such terms that the ecovillage experience aims "to overcome the sense of dissonance between identity and behaviour frequently felt in normal life, where one is constrained to follow models perpetuating social and ecological degradation" (Kirby, 2003, p. 332).

Litfin (2013) identifies four dominant common beliefs: the sacredness of the "web of life" to which all humans belong; an approaching crisis in global environmental trends; the primary role played by grassroots initiatives to bring positive change; communities seen as "adventures in relational living" where the social component is central. Indeed, the technical results achievable by these communities in terms of reduced ecological and carbon footprints and impact would not be possible without a firm commitment to share resources, values, and ideas (Litfin, 2013; see also Daly, 2017; Forino et al., 2019; McNamara & Buggy, 2017). While sharing can be seen as the essence of ecovillages' culture, a broader cooperative culture – which is "largely about a way of interacting that places relationships at the centre" – is important as well (Mychajluk, 2017, p. 181). The ecovillages that have managed to survive "provide insight on how learning how to live and work together within a cooperative culture is central to the ecovillage experience" (Mychajluk, 2017, p. 182).

For all its advantages, a culture based on cooperation and sharing makes ecovillage living very challenging because of the "intensity" related to the "extraordinary personal growth" experienced by most ecovillagers:

> Their accounts suggest that when people come together to transform their material and social landscape, they simultaneously enrich their inner landscape and, in so doing, spark new material and social possibilities. (…) The inner work is absolutely vital to the outer work – which, I believe, is equally true for those of us who may never visit an ecovillage. Whatever our metaphysical beliefs, sustainability turns out to be an inside job. (Litfin, 2013, p. 68)

It is in this sense that ecovillages can also be seen as "tough reflexive environments" supporting transformative processes which are potentially disruptive, but also vital, for the transition towards a more sustainable future (Chaves Villegas et al., 2016).

1.4.1 The growing importance of education and innovation

Today, ecovillages are rarely developed as gated communities (Dawson, 2006; Parr, 2009). As a matter of fact, the "island motif" was already "fading from the ecovillage scene" (Andreas, 2013, p. 17) a decade ago by virtue of ongoing transformations in

the wider society. The decline of isolationism has become evident also at a global scale (Dias et al., 2017): one of the key goals of the Global Ecovillage Network[8] (GEN), established in 1995, is to "advance human rights, conflict resolution, and reconciliation by empowering local communities to interact globally, while promoting a culture of mutual acceptance and respect, effective communications, and cross-cultural outreach" (GEN, n.d.).

The creation of a global network has led most ecovillages to become more and more involved in various forms of collaboration and alliances with other initiatives and institutions at multiple scales (Dias et al., 2017). Born in the Global North and often featuring a middle-class profile, this network has made ecovillages more mainstream than they were two decades ago (Meijering, 2012), but has also exposed them to critiques of "elitism" (Dias et al., 2017).

Yet, the overarching trajectory followed by the movement as a whole depicts a far more nuanced picture. Started as a utopian vision of community building, since the 1990s most ecovillages have gradually turned into grassroots experiments on sustainability: in spite of the numerous issues faced over the last thirty years, they have eventually focused their efforts "on developing solutions and practices for community organisation, solutions for the management of natural resources, and knowledge generation and sharing" (Singh et al., 2019, p. 241). Today, they mostly act as centres of research, demonstration, and training – as "yoghurt culture"[9] – to the point that education and learning have become "a vital aspect" of their "integrative approach to sustainability" (Litfin, 2013, p. 71). In recent years, some scholars have actually explored and advocated ecovillages as laboratories of experimentation and learning. Mychajluk (2017), for example, stresses the centrality of the "all-consuming process" (p. 190) of developing social competences. Papenfuss and Merritt (2019) emphasize the experimentation of different

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[8] According to the Global Ecovillage Network's database, there are currently more than 1,000 initiatives around the world that can be broadly identified as ecovillages (GEN, n.d.).

[9] "[S]mall, dense and reach concentrations of activity whose aim is to transform the nature of that which surrounds them" (Dawson, 2006, p. 66).

pedagogies, while Roysen and Cruz (2020) point out that ecovillages can involve students in transformative processes of learning.

Ecovillages' growing need to reach out a broader audience is easier to understand from a sustainability transition studies standpoint. Centred on the transformation processes through which socio-technical systems (such as energy supply and transportation) become sustainable (Markard et al., 2012), these studies help to shed light on the educational potential of ecovillages.

1.4.2 Socio-technical innovation and social learning in ecovillages

Sustainability transition studies appreciate the role played by grassroots initiatives, which experiment with socio-technical innovations on a regular basis (Seyfang & Smith, 2007). Adapted from the concept of "innovation niches" – protected spaces where radical innovations can be developed and experimented (Markard et al., 2012) – grassroots innovations

> describe networks of activists and organisations generating novel bottom-up solutions for sustainable development; solutions that respond to the local situation and the interests and values of the communities involved. (…) By viewing community-level activities as innovative niches, we gain a better understanding of the potential and needs of grassroots initiatives, as well as insights into the challenges they face and their possible solutions. (Seyfang & Smith, 2007, p. 585).

In juxtaposition to market-based innovations, grassroots innovations take place in the social economy[10] and involve networks of activists and organisations (Table 1.1). Their potential benefits are both intrinsic (i.e., environmental, socio-economic, etc.) and diffusion-related (i.e., fostering changes in ways precluded to individuals), but the challenges they pose are significant for the rare combination of talents, skills, and resources required (Seyfang & Smith, 2007). While, externally, most issues pertain either to replication[11] (i.e., diffusion within an activist network) or to niche-to-regime

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[10] An economic system is "social" when it is primarily driven not by profit, but by social needs (Seyfang & Smith, 2007).
[11] One of the most interesting examples of replication at a local scale is the Transition Towns movement: founded in Totnes (UK) in 2005, it stemmed from the ideas and experience of a former ecovillager, permaculture teacher Rob Hopkins. The hundreds of cities around the world which are

translation (i.e., adoption at higher institutional levels), internally the greatest challenge is to achieve and maintain social cohesion and resilience (Seyfang, 2010; Seyfang & Smith, 2007; Seyfang & Haxeltine, 2012). From the burnout of activists to the turnover of volunteers, disruptions should never be underestimated (Litfin, 2013; Seyfang & Smith, 2007).

Table 1.1

Market-based vs. grassroots innovations (Seyfang & Smith, 2007)

	Market-based innovations	Grassroots innovations
Context	Market economy	Social economy
Driving force	Profit	Social needs
Niche	Different market rules meant to shelter novelty from competition	Different values enabling alternative socio-cultural expressions
Organisational form	Firms	Voluntary associations, cooperatives, etc.
Resource base	Income from commercial activity	Grant funding, voluntary input, mutual exchanges, etc.

A view of sustainability as a locally rooted, pervasive phenomenon, however, entails the need to turn the tendential un-reflexivity of day-to-day life (Middleton, 2011) into a learning endeavour for the whole community.

That such a learning effort cannot be only individual (Seyfang & Smith, 2007) is clear non just in light of the peculiar nature of social economies – driven by social needs rather than profits – but also by virtue of the foundational assumptions of

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today part of this movement work on a voluntary basis to prepare for climate adaptation and the gradual phasing-out of fossil fuels (Dias et al., 2017).

sustainability transition studies (Shove, 2010): (a) societal transformations include new cultural meanings, practices, markets, regulations, and infrastructures; (b) social innovations cannot be fully separated from technical innovations, which are always the outcome of a negotiation between social actors; (c) both socio-technical systems and social arrangements are not a simple backdrop against which consumer choices are made: they influence individual choices and forms of demand, and they shape the premises of their own future change. According to such premises, the technical and the social go hand in hand, and the latter cannot be regarded simply as a neutral backdrop.

1.4.3 Pro-environmental behaviour vs. grassroots innovations

The assumption that sustainability can be achieved mostly by changing citizens' values and attitudes is instead at the foundation of pro-environmental behaviour studies (Shove, 2010), which see learning as an individual experience concerned with

> encouraging certain styles of purchasing (in which "green" is the brand of choice); avoiding waste (turning off the tap when brushing teeth, switching off lights that are not required, recycling rubbish); promoting efficiency by adopting green technology (for instance, installing insulation, acquiring more efficient appliances); and occasional restraint (taking fewer non-business flights, consuming a lower impact diet). (Shove, 2010, p. 1277)

Despite their scarce success, some models of pro-environmental behaviour introduced since the 1980s have become very popular among scholars and policymakers[12] (Hargreaves, 2012) – in part because they shift the ultimate responsibility for change on the shoulders of citizens (Shove, 2010).

Such models have significant political implications, for they tend to obscure "the extent to which governments sustain unsustainable economic institutions and ways of life, and the extent to which they have a hand in structuring options and possibilities" (Shove, 2010, p. 1274).

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[12] What Boström et al. (2018) identify in their literature review on transformative learning for sustainable development – a bias towards "an individualistic, cognitivist, optimistic, and harmonious picture" (p. 5) – is thus not surprising at all.

Whilst pro-environmental behaviour studies tend to justify the existing models of production and consumption, grassroots innovations question them and favour the rise of "more sustainable regimes of technologies, routines, forms of know-how, conventions, markets, and expectations (…) across all domains of daily life" (Shove, 2010, p. 1278). While doing so, grassroots innovations show very clearly that the scale of changes required by the transition to sustainability is such that decision making cannot rely exclusively on technical criteria and solutions.

As pointed out in the 2018 report from the Intergovernmental Panel on Climate Change (IPCC) on the 1.5°C target for global warming (Roy et al., 2018), grassroots initiatives such as ecovillages are very important because the transformations needed

> call for examining the values, ethics, attitudes and behaviours that underpin societies. Infusing values that promote sustainable development, overcome individual economic interests and go beyond economic growth, encourage desirable and transformative visions, and care for the less fortunate is part and parcel of climate-resilient and sustainable development pathways (p. 475).

Such an important statement on the part of the IPCC is telling of the increasingly relevant role acknowledged to grassroots initiatives over the years – and of the undeniable limits of policies (those based on pro-environmental behaviour) which should be either reformed or completely overcome.

Chapter 2

Practice and community

2.1 Introduction

As pointed out in the previous chapter, the everyday and its practices are key to a locally-rooted understanding of sustainability (Boyer et al., 2016) and, thus, of how ecovillages work. From this standpoint, any process of transition "is likely to involve new expectations and understandings of everyday life and different forms of consumption and practice" (Shove & Walker, 2010, p. 471).

Cloughjordan Ecovillage's (CEV) Learning Alliance project moves from the central assumption that learning together rather than separately should help the educators to maximize their impact on the mainstream by changing the everyday practices of more and more lay citizens. The organisational goal of ensuring that their activities work more or less in the same direction cannot thus be separated from the learning goal of sharing a common vision of how to make socio-technical and socio-economic innovations more impactful. As explained in this chapter, a practice-based view is also helpful to explore how such two objectives could be jointly pursued.

Section 2.2 explains in what terms practice theories are radically different from all other traditions in social studies, and why they constitute a challenge to representational epistemology (Taylor, 1995). The seminal contributions of Pierre

Bourdieu and Anthony Giddens are then outlined in their key ideas in section 2.3, while sections 2.4, 2.5, and 2.6 describe in detail the framework adopted for this study. By the end of this chapter, it should be sufficiently clear why Schatzki's (2002) conceptualization of practice and Wenger's (1998) theory of communities of practice allow to to approach the Learning Alliance project in a way that is coherent with its nature and long-term objectives.

2.2 A practice-based view of the world

As pointed out by Nicolini (2012), "practice theories potentially offer a new vista on all things organisational (and social)" (p. 2) not only by virtue of their focus on everyday activities, but also thanks to the peculiar sensitivity that scholars such as Schatzki (2002) and Reckwitz (2002) have acknowledged to this approach.

"Practice" is meant not as the whole of human action in juxtaposition to "theory" and thinking, but as *Praktik*, the German word used to identify "a routinized type of behaviour [such as a way of working, of or doing something specific] which consists of several elements, interconnected to one other": discourses, tools, bodies and bodily movements, texts, backgrounds, know-how, attitudes, affects, skills, etc. (Reckwitz, 2002, p. 249). Since they imply a view of the world "as a seamless assemblage, nexus, or confederation of practices" with different degrees of relevance, practice theories are inherently relational, and practices are inherently social (Nicolini, 2012, p. 3; Reckwitz, 2002).

Although practice theories do not constitute a unified domain of study and a universal definition of practice cannot be provided, most scholars in the field agree that practices are (a) "historically and geographically recurring localized occurrences", (b) "complex wholes composed of other 'smaller' elements – for example, bodily motions and simpler actions", and (c) "configurations of actions which carry a specific meaning" (Nicolini, 2012, p. 10).

Much of the appeal and sensitivity of a practice-based view of the world lies in its "capacity to resonate with the contemporary experience that our world is increasingly in flux and interconnected":

> When we enter an office, superstore, or a hospital it is increasingly difficult to think of
> it as the outcome of the application of a detailed blueprint and plan, or a single
> system with definite boundaries as in the traditional structural-mechanistic and
> functional-systemic views of an organisation. Things seem to fall into place much
> better if we think of the fluid scene that unfolds in front of us in terms of multiple
> practices carried out at the same time. (Nicolini, 2012, p. 2)

Such a view, allowing to appreciate that "behind all the apparently durable features of our world there is always the work and effort of someone", suggests that social structures, for the very fact of being open to contestation, are never fixed: they can always break down (or be taken down) and collapse (Nicolini, 2012, p. 3). It is this potential openness to change that makes practice-based approaches very suitable to explore socio-technical innovation and learning on sustainability from a standpoint that is both deeply social and locally grounded.

There are at least five ways in which practice theories are radically different from the other traditions in social studies (Nicolini, 2012):

(a) **The centrality of activity, performance, and work** in creating and perpetuating all aspects of social and organisational life. Since social structures stem from routinized actions in the sequence of time, social order is mainly about social reproduction. Practices are organised nexus of human activities – socially, culturally, and historically contextualized – which cannot exist without the interconnectedness of their constitutive elements and cannot be reduced to any of such elements (Reckwitz, 2002).

(b) **The reframing of individual agency and performances** as inseparable components of an ongoing practice where the focus is shifted away from individual action – from practitioners to practices as the basic unit of analysis. Practitioners are important not as individuals with agency, but as the *carriers* of organised bundles of human activities.

(c) **The critical role played by bodies and material things** in all social affairs. The body, inseparable from the mind, is a *modality* of practice: not just an instrument, but a way in which a practice is performed regularly and

skilfully. As for objects, they contribute to the accomplishment of the
practice and make it durable over time.

(d) **The reconceptualization of knowledge** as the ability to master a socio-
material activity. Since knowledge in practice is a way of understanding
and living in the world, becoming part of an existing practice means
learning "how to act, how to speak (and what to say), but also how to feel,
what to expect, and what things mean" (p. 5) in social terms. Knowledge,
meanings, and discourses are social in the sense that they are never the
expression of just a single individual.

(e) **The importance attributed to power and conflict** as constitutive elements
of a social reality where tensions and change are a permanent feature.

Rather than being just about "doing things", practices are thus an important source
of meaning, identity, and power, and they counter the tendency to describe the
world in terms of irreducible (and often problematic) antinomies such as
actor/system, body/mind, and theory/action (Nicolini, 2012). It is in such terms that
practice theories, whenever adopted in their stronger interpretation[13], challenge the
representational epistemology which has been dominating natural sciences since the
time of Descartes[14] (Taylor, 1995).

   As shown in the following section, however, theorizing practices – an
expression that may sound contradictory in itself – has represented a very difficult
endeavour even for the most ground-breaking scholars in the field.

2.3 The social praxeology of Bourdieu and Giddens

Over the last fifty years, practice theories have been developed in relation to a
"social praxeology" according to which "social life is a contingent and ever-changing

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[13] That is, by fully embracing their ontological and epistemological assumptions (Nicolini, 2012).
[14] While understanding mind and body as separate entities, this epistemology argues that knowledge
"hangs on a certain relation holding between what is 'out there' and certain inner states that this
external reality causes in us" (Taylor, 1995, p. 4).

texture of human practices" (Nicolini, 2012, p. 44). The term "social praxeology" is used by Nicolini (2012) to refer primarily to the foundational works of sociologists Anthony Giddens and Pierre Bourdieu, who both see *praxis* as the core element of social phenomena[15].

Moving from the work of Marx, Giddens' "structuration" theory addresses the issue of the relationship between structure, agency, and the social with the aim to overcome the traditional opposition between objectivism (i.e., Lévi-Strauss's structuralism) and subjectivism (practices led by decisions of the will) (Nicolini, 2012). At a theoretical level (Giddens has neither tested empirically his ideas nor provided specific methodological tools), this goal is achieved by assuming that society as praxis is produced and reproduced through a recursive, "circular" work of structuration where agency and structure are mutually dependent (Nicolini, 2012).

Structuration is therefore "the process of structuring social relations across time and space, whereby structures are either reinforced and continued or, alternately, transmuted or changed" (Pham & Tanner, 2015, p. 6). Since both agency and structure generate and constrain each other, trying to understand "what comes first" becomes meaningless. Structuration grants practices a central role: as the *point of articulation* between actors and structure, they mediate social reproduction and change through their interconnection – hence their quasi-foundational ontological status, for it is this specific interconnection to represent the main source of both stability and change (Nicolini, 2012).

Differently from Giddens, Bourdieu – a practising ethnographer – has developed a more articulated theory and put it to the test of empirical research (Nicolini, 2012). The concept of *habitus* he introduced allows to explain both the regularity, order, and coherence of human conduct and its negotiated strategic nature. As a form of knowing in practice and a way of *being in* (rather than

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[15] Historically, the term *praxis* became familiar in the Marxist lexicon "to designate a kind of self-creating action, which differed from the externally motivated behaviour produced by forces outside man's control" (Jay, 1996, p. 4). In the Marxist usage, *praxis* was not seen in opposition to theory, but in dialectical relation to it (Jay, 1996).

understanding) the world, habitus has indeed a twofold nature. On the one hand, it is made of pre-conscious mental dispositions, bodily schemas, and know-how; on the other, it is more than tacit or embodied knowledge[16], for it entails a relation of commitment and belonging to a particular type of socio-material environment (field) of which it reflects the constitutive structure (Nicolini, 2012).

It is in such terms that what might appear as the most individual activity is in fact inherently *social*: by linking individual conduct to a specific milieu, habitus contributes to generating practices, and by doing so it also contributes to perpetuate the socio-material conditions (relations of domination and exploitation included) underlying such practices.

On its own, however, habitus cannot produce and reproduce practices: its very nature implies the involvement of a specific field and of a "social capital" – of anything that, once exchanged, influences the current balance of legitimacy and power (Nicolini, 2012).

2.3.1 The challenge of theorizing practices

Despite the unquestionable importance of their contributions, neither Giddens nor Bourdieu seem to have completely overcome the dichotomy between objectivism and subjectivism (Nicolini, 2012).

On the one hand, Giddens' structuration theory still considers practices "as purposeful activities of individuals guided by rules and strategic decisions": while formally breaking away from functionalism, at the ontological level the residual overlapping is still significant (Nicolini, 2012).

On the other hand, as noted by many scholars included Bourdieu himself, the attempt to overcome objectivism and subjectivism through the concept of habitus has proved successful only to a limited extent – in part because of the inconsistencies

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[16] See, for example, the phenomenological works of Merleau-Ponty and Michael Polanyi.

and ambiguities (Lau, 2004) of habitus, which "leaves too many aspects of practices largely underdetermined and unaccounted for" (Nicolini, 2012, p. 66).

The problems faced by Giddens and Bourdieu show the challenging complexity of theorizing practices. In the first place, it is clear that endorsing a practice-based view of the socio-material world does not automatically imply a real break away from traditional assumptions (Nicolini, 2012). Secondly, theorizing practices amplifies the problems of theorizing social phenomena, that always demand to find a compromise between universal invariance and local specificity – between the need to define general principles and the need to take real contexts into account[17]. As put by Nicolini (2012), "the problem may not be in the type of theory but in the very idea that there is such a thing as a theory of practice" (p. 66).

To overcome this impasse, Nicolini (2012) suggests that, since the search for a single, universal logic of practice is somehow self-contradictory, it can be fruitful to understand praxeology as an "ontological sensitivity" and a set of epistemic preferences rather than a corpus of universally valid normative statements. If social studies are to be made as rich and nuanced as possible by rejecting simplified solutions to complex issues, then praxeology should be open to the combination of multiple theories and traditions as long as they are compatible with each other (Flyvbjerg, 2001; Nicolini, 2012).

It is important to notice that neither Bourdieu nor Giddens pay sufficient attention to three aspects that are all relevant to CEV's Learning Alliance project: how and why habitus and practices change; the work of mediation performed by technology, instruments, and other material objects; the role of reflexivity in the generation of practices[18] (Nicolini, 2012). As explained in the two following sections, such aspects have been addressed by other scholarly traditions in practice studies.

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[17] For a lengthy discussion of this topic see, for instance, Flyvbjerg (2001).
[18] Giddens does acknowledge the central importance of reflexivity, but his theory ends up giving a prominent role to routine and tacit knowledge (Nicolini, 2012).

2.4 Schatzki and the legacy of Heidegger and Wittgenstein

While not representing a unified school, important philosophers and social scientists such as Charles Taylor, Theodore Schatzki, Chantal Mouffe, Ernesto Laclau, and Joseph Rouse have all drawn from the early Heidegger and the later Wittgenstein to identify social practices and their connections as the starting point for exploring and understanding human affairs (Nicolini, 2012).

This tradition emphasizes that, in human affairs, people are mostly driven by intelligibility: they do and say certain things rather than others because, for them, *it makes sense to do and say so*. Since it is in practice that this sense manifests itself in the first place, practices become the fundamental unity of analysis of social reality (Nicolini, 2012):

> In empirical terms, this translates into an injunction (contra traditional approaches) to start the investigation into social phenomena not via roles and individuals and their actions (entrepreneur, leader, managers), but via the material and discursive practices that allow them to occupy such subject positions. (…) Practice theory is, in this sense, neither individualist nor anti-individualist, but rather post-individualist. (p. 178)

The centrality of sense-making and meaning in human existence, pointed out by both Heidegger and Wittgenstein, plays a key role in the philosophical approach of Theodore Schatzki, who can be considered a good representative of this tradition (Nicolini, 2012).

The author of one of the most articulated and influential versions of practice theories proposed over the last thirty years (Cox, 2012), Schatzki uses the term "action intelligibility" to indicate that most of the time humans – who are "neither serial rational decision makers nor cultural/rule/habitus dupes" (Nicolini, 2012, p. 163) – deal with their conditions of life by making sense of what is going on. Action intelligibility is thus different not only from rationality (what makes sense to do or say can vary from context to context), but also from social normativity: what makes sense to do or say can conflict with what *should* be done or said in a given context where certain rules or values apply. In this regard, practices are "horizons of intelligibility", for they provide the background in relation to which it is possible to obtain a prior

understanding of the situation, make "something" intelligible, and get to know "what to do next". According to Heidegger's famous example, a hammer can be "understood" (as a tool, for example) only against a specific background (Nicolini, 2012). Such horizons, however, do not have causal powers as in the case of traditional structuralism: they just provide the site (the "house") of the social (Nicolini, 2012). Since practices are inherently *heterogeneous* and *socio-material*, both artefacts and the entanglement between human and non-human performativity play a central role. Schatzki argues that, whilst artefacts do have agential power, it is only humans to eventually *carry out* practices: this implies that "in the end, human action bears more responsibility for social existence than the context in which takes place" (Nicolini, 2012, p. 170). Such an emphasis is in open disagreement with Latour's actor-network theory, according to which "artefacts and things fully participate in social practices just as human beings do" (Nicolini, 2012, p. 169).

The relevance granted to intelligibility, artefacts, and technologies is not the only aspect in relation to which Schatzki differentiates himself from Bourdieu and Giddens. Whilst the latter have never provided a detailed analysis of what practices are (Nicolini, 2012), Schatzki (2002) articulates practice as "a temporally evolving, open-ended set of doings and sayings linked by practical understandings, rules, teleo-affective structure and general understandings" (Schatzki, 2002, p. 87).

2.4.1 Schatzki's concept of practice

Schatzki's (2002) conceptualization identifies three main levels at which practices are organised: the most basic components with the same analytical relevance are *doings* and *sayings* (lower level), that combine to create *tasks* (intermediate level), which in turn aggregate to form *projects* at the higher level.

Doings, sayings, tasks, and projects "hang together" through multiple ongoing actions linked to each other in four principal ways (Nicolini, 2012):

    (a) *Practical understanding*, the first mechanism linking actions together in the accomplishment of a practice, is essentially the knowing necessary to

master a practice in the sense of being able (as Wittgenstein put it) to proceed unhampered in that practice. Without a common practical understanding, the carriers of the practice could never agree on what makes sense to do, and there couldn't be action intelligibility.

(b) The *teleo-affective structure* is related to Heidegger's idea that carrying (and carrying out) a practice means also *taking care* of it. This structure combines the goals that participants should or might pursue (and the relative tasks and projects) with the emotions and moods associated with them. Contestation and conflicts are inevitable (though not always mediated by discursivity): after all, it is from confrontation and disputes that practices evolve over time through the emergence of different projects, goals, and affects.

(c) *General understandings* are those reflexive understandings which give the practice its peculiar identity, discursively as well as practically. It is because of such understandings that, from an analytical standpoint, grasping what is happening "in real time" is not sufficient: it is also important to comprehend (a) what is *not* happening, and (b) what could *alternatively* be happening – that is, both the past and the possible alternatives to the present.

(d) *Rules* (such as precepts and instructions) are "programmes of action that specify what to do" (p. 166) to orient and determine the future course of activity; such rules are meant to be always explicit.

Schatzki's conceptualization of practice is clearly informed not just by action intelligibility and normativity (practices are largely responsible for the establishment of social order), but also by teleology, affectivity, and reflexivity. Open-ended and temporally unfolding, practices are by definition *social* phenomena: objectives, affects, and reflexive understandings are essential components of a collective endeavour which cannot be reduced either to "thicker" descriptions of people's conduct or the simple sum of individual actions. As such, practices are the bedrock of

meaning (being intelligible as something) and identity (being intelligible as someone) – which in turn are relational, multiple (variable across different "contexts"), and provisional (variable across time) (Nicolini, 2012).

What is missing in Schatzki's approach, however, is a clear link between the nexus of doings and sayings constituting a given practice and its concrete performance (Nicolini, 2012). The very mechanisms he identifies to explain how doings and sayings combine at multiple levels are essentially descriptive, and they do not offer an articulated explanation of *how* practices can change over time (Nicolini, 2012).

Some fundamental clues pertaining to learning and change in practice can be drawn from a third major scholarly approach: that of practice as tradition and community.

2.5 Communities of practice

Associating practice with tradition and community is anything but new, for such a connection, which goes back to the work of Plato and Aristotle, has also been addressed by numerous founders of modern social thought, from Durkheim to Weber (Nicolini, 2012). On the one hand, it is evident that, since practical knowledge cannot be made explicit in its entirety, only traditions (from simple processes of handing down to institutions) allows its integral transmission. On the other hand, both socialization and learning – "indispensable elements of any coherent practice-based theorizing" (Nicolini, 2012, p. 77) – often entail a communitarian dimension that shouldn't be overlooked.

Back in the 1980s, scholars like Stephen Turner and Jean Lave argued that, without a solid and coherent theory of learning, using practices to explain why and how certain doings and sayings persist in time becomes equivalent to appealing to "obscure forces and elusive objects" (Nicolini, 2012, p. 78).

The concept of "legitimate peripheral participation" (LPP) that Jean Lave, an anthropologist, went on to develop in the early 1990s in collaboration with Etienne Wenger, a social scientist, was intended to address this very issue. As the learning

process through which a newcomer absorbs, and is absorbed into, a practice, LPP is
(a) "legitimate", in the sense that being effectively recognized as part of an activity is
necessary to become a member, as well as a "stakeholder", of the ongoing practice;
(b) "peripheral", not because marginal in relation to a centre, but because the
position and accountability of a learner can change within the practice; (c)
"participative", because it is assumed that learning needs interaction with others to
include history, culture, power, and accountability (Lave & Wenger, 1991). All such
features combined mean that

> [b]y entering a practice, a novice doesn't just assimilate new competence but also
> confirms, sustains, and reproduces the social order that sustains it. In this way, the LPP
> perspective links inextricably the development of knowledgeable identities with the
> reproduction and transformation of the social fabric of a practice. To learn is both to
> join and to subvert the existing fabric of power/knowledge. (Nicolini, 2012, p. 81)

In other words, LPP theory suggests that learning in practice builds up to identities of
participation stemming from the competences and skills acquired as well as from the
position achieved within the practice itself (Lave & Wenger, 1991). As a process
rooted in the reproduction of social order, learning is not just "situated", for it links
identity formation to competence development through the essential dimensions of
meaning and power (Lave & Wenger, 1991).

Whilst meaning refers to action intelligibility and sense-making as emphasized
by Schatzki and his tradition, power pertains to that normative dimension which is so
relevant (though from different standpoints) to both Schatzki and Bourdieu. Without
meaning, LPP would lose its direction; without power, it couldn't even be performed
in the first place. This makes learning not only virtually inseparable from the activities
to which it refers (intelligibility is always in-practice), but also a somehow conflictual
endeavour, for the normativity of practice doesn't usually allow a smooth handing-
down process (Nicolini, 2012).

The network of actors participating in the LPP process was defined by Lave
and Wenger (1991) as a "community of practice". This notion was later elaborated by
Wenger (1998) to develop a quite complex and nuanced social theory of learning
where the key ideas behind LPP are re-elaborated and articulated in more depth.

2.5.1 The foundations of CoPs

Based on the ethnographic study of an insurance company's office and influenced by numerous theorists (from Bourdieu and Giddens to Wittgenstein and Bruno Latour), Wenger's (1998) theory of communities of practice (CoPs) moves from the key assumption that learning is a "fundamentally social phenomenon, reflecting our own deeply social nature as human beings capable of knowing" (p. 3). Hence its pervasive nature.

As something that can virtually take place in *any* domain of human endeavour, learning cannot be reduced to the result of formal teaching – nor can it be seen as a linear process with a beginning and an end (Wenger, 1998).

CoPs are similarly pervasive, for they can stem from any social milieu where three fundamental conditions are met (Wenger, 1998):

(a) **mutual engagement**: some people engage with one another to do something together – spatial proximity and allegiance to the same group or team being of secondary importance. Mutual engagement can demand a work of "maintenance"[19] useful to support the endurance of CoPs over time, but it does not imply either homogeneity or absence of conflicts.

(b) **joint enterprise**: mutually engaged people coordinate their sayings and doings in order to align towards the same goals. Such an enterprise is always *negotiated* because of the need to find a compromise between multiple aspirations; it is always *indigenous*, for it is necessarily constrained by the concrete conditions in which participants find themselves to operate; and it is *joint* in the sense that it creates relations of mutual accountability.

(c) **shared repertoire**: mutually engaged people belonging to a joint enterprise rely also on a variety of material and non-material elements (ways of doing things, actions, discourses, concrete tools, stories, symbols, etc.) to negotiate meaning – that is to say, to make sense of what they are doing together. An

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[19] Which includes doing small but important things (just like offering a cup of coffee) that help to make daily work more bearable (Wenger, 1998).

integral and dynamic part of CoPs, the shared repertoire backs the

negotiation of meaning by reflecting a history of mutual engagement: in this

sense, it can always be re-engaged in new situations and generate new

meanings.

The conditions summarized above represent not only the three dimensions through

which a practice comes to give coherence to a community[20] over time, but also the

three levels at which CoPs' learning takes place (Wenger, 1998). It follows that

learning, from a CoPs perspective, does not stem from *everything* that is done in

practice: it is limited to what changes "our ability to engage in practice, the

understanding of why we engage in it, and the resources we have at our disposal to

do so" (Wenger, 1998, p. 96). Although articulated in more depth (and with a

different focus), the concept of learning at the core of CoPs is essentially the same

characterizing the LPP process: over time, and with the constant mediation of

meaning (the understanding of why we engage in practice), power (the ability to

engage in practice), and of a shared repertoire, learning takes place through identity

formation and competence development – the former being not separable from the

latter (Wenger, 1998). Since learning is about "getting to know new things" and

"becoming someone" within a certain social order at the same time, CoPs theory is

more concerned with the social process of negotiating meaning and competence

than with the description of a group of people interacting *in situ* (Farnsworth, et al.,

2016). This is reflected in the fact that, while meaning is seen as stemming from the

dynamic relation of living in the world (action intelligibility, as in the case of LPP), the

term "power" is primarily used to refer to the ability of participants to *define*

competence (Farnsworth et al., 2016):

> And so when you have a claim to competence in a community, that claim to
> competence may or may not be accepted. Or it may take work to convince the
> community to accept it. When the definition of competence is a social process taking
> place in a community of practice, learning always implies power relations. Inherently.
> (p. 151)

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[20] In Wenger's (1998) view, however, practices and communities do not necessarily imply each other.

The greater the ability to "appropriate" meanings (that is, to make them count), the stronger the power to define competence within CoPs (Wenger, 1998).

It is only through such dimensions of meaning and power that is it possible to understand how CoPs change over time (Fig. 2.1).

2.5.2 The negotiation of meaning and identity formation

The negotiation of meaning is "a fundamentally temporal process" (Wenger, 1998, p. 86) implying the constant, diachronic interplay between *participation* and *reification*.

Figure 2.1

The two key social processes at the core of CoPs (adapted from Wenger, 1998)
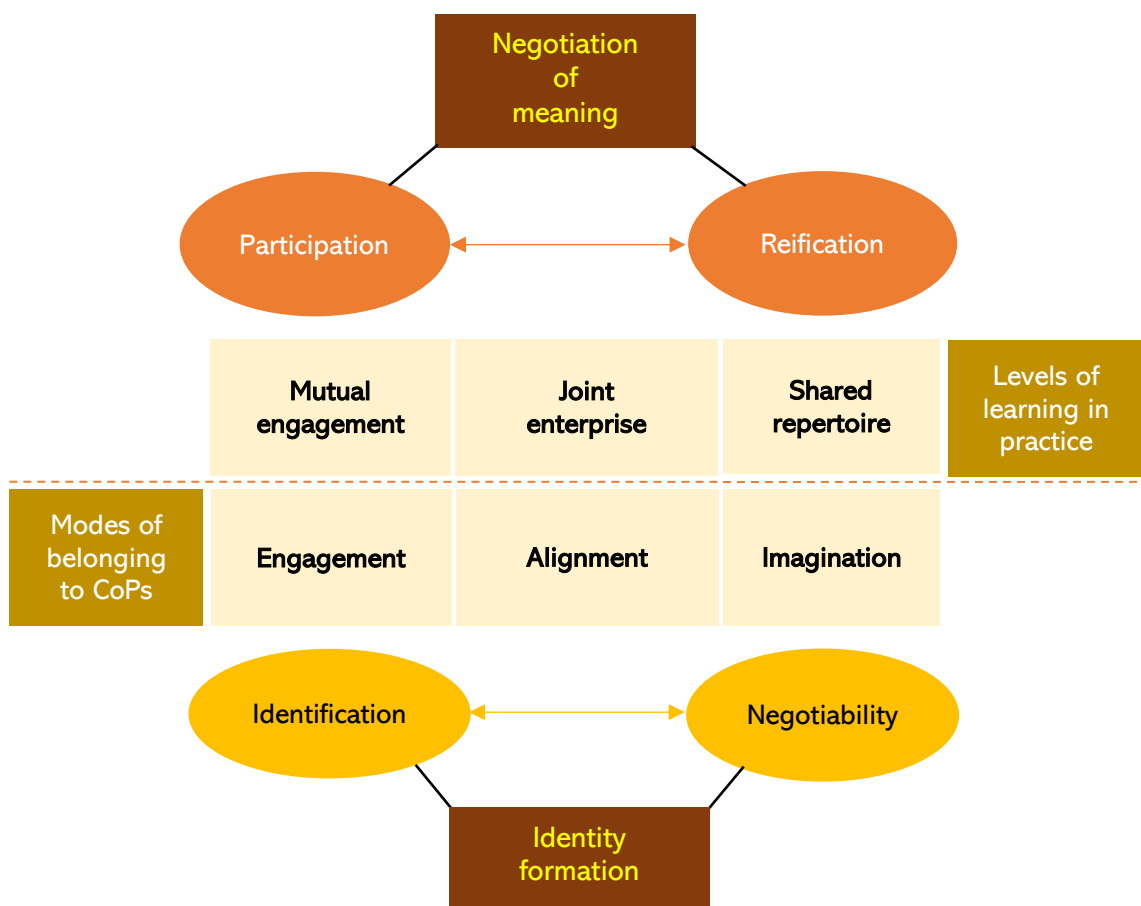
Much broader than engagement, participation relates to various forms of membership and active involvement (living in the world, acting, and interacting), and can be both collaborative and conflictual. As such, participation always implies the possibility of its opposite: non-participation (Wenger, 1998).

Reification, on the other hand, describes the process through which "aspects of human experience and practice are congealed into fixed forms and given the status of objects" (Wenger, 1998, p. 59). It is around such objects, both material and non-material (discourses, messages, documents, symbols, monuments, tools, etc.), that the negotiation of meaning is organised. Reification is a process and a product at the same time, for meaning can never be entirely translated into objects (Wenger, 1998).

Since participation and reification are indistinguishable in practice, the weakening or strengthening of only one of such dimensions bring to imbalances that cannot always be corrected (Wenger, 1998). Participation, for example, can amend the potential misalignment inherent in reification: a meeting is often necessary to introduce a new policy to avoid misinterpretations. In a similar way, reification can compensate for the shortcomings of participation: a memo allows someone who cannot attend a meeting to be informed about it (Wenger, 1998). However, if participation is strengthened excessively at the expense of reification, CoPs tend to become too "volatile" for the lack of sufficient material to which anchoring coordination; and whenever it is reification to become dominant at the expense of participation, CoPs can lose their inner cohesion (Wenger, 1998).

While the negotiation of meaning is the social process through which CoPs' members make sense of what the practice is about, identity formation (equally social and diachronic) defines how the single practitioners become members of a community of practice from three distinct standpoints (Wenger, 1998): *engagement*, the active involvement in the negotiation of meaning; *alignment*, the coordination of participants' actions and practices towards a common end; *imagination*, a creative process through which CoPs' members develop new, alternative images of the world

and themselves. These "modes of belonging" do not imply each other, but they are all equally necessary for the negotiation of meaning to happen (Farnsworth et al., 2016). The latter and identity formation are the two sides of the same coin: if meaning gives identity a shape and a direction, it is identity (through power) to determine the specific meanings that eventually prevail within CoPs.

Identity formation is indeed the outcome of the interplay between *identification* and *negotiability* (Wenger, 1998). Identification defines the meanings that matter to the CoP's members both positively (in relation to who they are) and negatively (in relation to who they are not); negotiability, founded on relations of legitimacy and power, is the ability to affect, control, and shape such meanings (Wenger, 1998). Similarly to participation and reification, identification and negotiability constitute a duality: without identification, there wouldn't be any meanings to negotiate; without negotiability, identification would be powerless (Wenger, 1998). Imbalances are clearly possible also in this case. Whilst an excess of identification can make a community a monolithic, totalizing entity (as the meanings of very few people become dominant), too much negotiability can weaken it to the extent of producing excessive fragmentation (Wenger, 1998).

2.5.3 Knowledge and information

Wenger's depiction of CoPs theory as "an attempt to place the negotiation of meaning at the core of human learning, as opposed to merely the acquisition of information and skills" (Farnsworth et al., 2016, p. 145) is telling of his approach to knowledge and information.

Far from representing a "thing" acquired and accumulated over time as a tangible "stock", knowledge is essentially participative and can be understood only in the dynamic engagement of the practitioner in the world. This is why Wenger (1998) uses the term "knowing" instead of "knowledge": "too big, too rich, too ancient, and too connected" to stem only from the single practitioners, knowing is also "too engaged, too precise, too tailored, too active, and too experiential" to be

"just of a generic size" (pp. 141-142). It is in this sense that "knowing in practice" stems from the negotiation of meaning and competence (Wenger, 1998).

Similarly to knowing, information cannot be severed from participation, for it is relevant only to the degree to which it contributes to identity formation. If excluded from the negotiation of meaning and competence, it becomes a liability – "disempowering, overwhelming, and alienating" – for it "does not build up to an identity of participation" (Wenger, 1998, p. 220). When Wenger (1998) observes that information societies *beg* the question of identity rather than displacing it, he seems to suggest that endemic problems such as information overload cannot be tackled without addressing issues of participation and identity formation (see also Postman, 2004).

2.5.4 CoPs as "practices performing commonality"

In comparison with the concept of LPP, CoPs theory works better not only to address issues of power – in particular at a small-to-medium scale (Farnsworth et al., 2016) – but also to explain change rather than invariance through its emphasis on identity formation[21] (Cox, 2012; Nicolini, 2012).

Claiming that there's a contradiction between the importance acknowledged by Wenger (1998) to identity and the idea that practices are the fundamental unit of analysis would be misleading. In the first place, CoPs theory – as Wenger (1998) himself clarifies – does not assume the single practitioner as a point of departure. The distinction between the individual and the social is not seen as a dichotomy, and all simplifying assumptions about their relationship (such as the existence of an inherent conflict between them) are explicitly discarded (Wenger, 1998). Secondly, CoPs theory is concerned with learning-related social processes (participation, reification, identification, negotiability), not with the goals of the single practitioners.

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[21] Quite unusual in practice theories, this emphasis is relevant to stress "the active role of human beings in continuously reinventing social practices" (Cox, 2012, p. 182).

Yet there's an undeniable, major risk behind the importance granted not only to identity formation, but also to the relationship between community and practice. When Wenger (1998) defines CoPs as "a kind of community created over time by the sustained pursuit of a shared enterprise" (p. 45), he seems indeed to put practice *before* community. His clear tendency to approach practices as both communities and units with boundaries, however, implies the risk of reasoning in terms of "communities performing practices" – whilst practices, as nexus of doings and sayings, should always be seen as *boundless* (Nicolini, 2012):

> Practice theory starts, in fact, with process, and takes the emergence and creation of (provisionally) identifiable units (individuals, groups, organisations) as the thing to be explained. Practices are regimes of activity and processes. As such, they can be used as building blocks for theorizing and as objects of analysis, but they are not bounded 'units'. (p. 180)

The risk of considering practices as units with boundaries is therefore two-fold. On the one hand, the emphasis on identity formation and communities performing practices might reintroduce individualist, structuralist, and functionalist concerns which should be overcome by practice-based approaches (Nicolini, 2012). On the other hand, such emphasis might grant excessive prominence to a controversial term like "community", which is hard to define and often suggests positive overtones (Cox, 2012; Nicolini, 2012; Roberts, 2006).

Nicolini (2012) suggests that these issues can be overcome by reversing the approach and thinking in terms of "practices performing communities and sustaining processes of identification":

> There is no need for a voluntaristic notion of community, where it is understood as a self-conscious, self-proclaimed entity to sustain the connectedness bestowed by practice. On the contrary, the sense of community that has fascinated social scientists, politicians, and ideologues of all times reveals to be itself the result of specific practices. (pp. 92-93)

By making clear that "the 'community' in the expression [community of practice] is, if anything, a form of commonality performed by the practice and not vice versa" (Nicolini, 2012, p. 94), the explorative power of Wenger's (1998) CoPs theory can be employed in a more effective way.

From this specific viewpoint, the Learning Alliance can thus be interpreted as a form of commonality emerging from a set of practices that the educators should come to share over time. The framework presented in this chapter (Table 2.1) identifies *meaning* (what the practice is about) and *power* (the ability to define competence) as the two fundamental dimensions through which such practices should be aligned (with the mediation of learning) to achieve the goals of the Alliance.

Table 2.1

Theoretical framework

Sources	Key concepts		
Structure of practice (Schatzki, 2002)	*Practical understanding* Knowing necessary to master a practice.		
	Rules Programmes of action.		
	Teleo-affective structure Combination between the practice's goals and the moods/emotions associated with them.		
	General understandings Reflexive understandings which give the practice its peculiar identity, discursively as well as practically.		
Communities of Practice (Wenger, 1998)	*Negotiation of meaning* Participation Reification	*Dimensions of learning* Mutual engagement Joint enterprise Shared repertoire	
	Identity formation Identification Negotiability	*Modes of belonging* Engagement Alignment Imagination	

Chapter 3

Literature review

3.1 Introduction

The theoretical framework outlined in Chapter 2 provides the main conceptual tools necessary to address the challenges posed by the Cloughjordan Ecovillage's (CEV) Learning Alliance project from a practice-based standpoint.

The Learning Alliance project requires a comprehensive understanding of the various practices that can be labelled as "education for sustainability", and it also demands to develop a collaborative dimension where information and knowledge sharing are central. If the main goal of the Alliance is to maximize CEV's impact on the mainstream, then it is key to understand how its educators can learn from one another. While Schatzki's (2002) concept of practice allows to describe how CEV's education for sustainability is carried out daily, Wenger's (1998) CoPs theory helps to explore in what ways the educators could learn more *together*. None of these frameworks, however, provides any specific advice about how to account for information use and sharing. How should we approach such activities? Is there a concept in library and information studies that is more suitable than others to address this issue?

To address such questions, focusing on the different uses of practice theories – and, more specifically, of CoPs – in the literature is clearly not sufficient. It is also necessary to consider how the (broadly speaking) uses of information, at work and in everyday life, have been explored by scholars over time.

While section 3.2 briefly outlines the evolution of the studies on information behaviour and practice, section 3.3 reviews the literature on collaboration and information sharing and explains why the latter raises issues that cannot be overlooked. In section 3.4, I describe the different uses of the CoPs framework in both library and information studies and research on sustainability, and in the following section – centred on the joint study of information sharing and CoPs – I finally introduce the concept of "information in social practice" (Cox, 2012) as a more effective way to approach information within CoPs.

3.2 Information: behaviour vs. practice

Library and information studies (LIS) have been concerned with the information user since their very inception in the 1940s. Whilst at the beginning the focus of analysis was on information systems, services, and documents, in the late 1960s the attention shifted on users and their specific needs (Wilson, 2008).

Yet it was only during the 1970s that such studies – as exemplified by Feinman et al. (1976) – were eventually extended to the social and organisational world (Wilson, 2008). Terms like "information behaviour", "information use", and "information needs" started then to gain some traction, and in the early 1980s one of the very first (and most seminal) models of information-seeking behaviour was proposed by T.D. Wilson (1981). Explicitly indebted to Schutz's social phenomenology, this model is centred on the individual motivations behind information-seeking behaviour, but it also stresses the importance of socio-cultural contextualization (Savolainen, 2007).

The use of the label "information behaviour" became increasingly widespread in the 1990s (Savolainen, 2007; Wilson, 2008), when most of Elfreda Chatman's pioneering ethnographic work was conducted. Centred on marginalized populations

("small worlds") such as janitors, elderly women, and prisoners, Chatman's work aimed to understand the social factors and norms influencing everyday information behaviour (Fulton, 2005). Her theory of normative behaviour (Chatman, 2000) has played an important role in bringing more attention to everyday life information behaviour (Rothbauer, 2005). Yet its conceptual roots are still represented by social constructivism and social phenomenology – that is to say, by forms of culturalist mentalism (Reckwitz, 2002) that practice theories are meant to overcome.

When some scholars started to use the term "information practices" in the early 2000s, information behaviour studies were still very popular (Savolainen, 2007). McKenzie's (2003) empirical model of everyday life information seeking was one of the first to adopt the new label to include unexpected exchanges or observations into information behaviour. Her constructionist approach was later advocated also by Tuominen et al. (2005), who suggested that the term "information practices" could be helpful to move away from behaviour, ideas, and motives of individual actors. Then, in 2008, Savolainen proposed an empirical model of "everyday information practices" based on both Schatzki's conceptualization of practice and social phenomenology. Theorized as "a set of socially and culturally established ways to identify, seek, use and share the information available in various sources such as television, newspapers, and the Internet" (Savolainen, 2008, p. 2), such practices are primarily understood as "seeking", "use", and "sharing". As seen in the examples above, Savolainen's (2008) work combines concepts drawn from practice theories with an epistemology that doesn't consider practices as the entry point of analysis (see also Cox, 2012).

3.2.1 The limits of the "information practice" framework

Numerous studies exploring the information activities of specific populations in specific contexts have followed the same approach of Savolainen (2008) – or a very similar one. From welfare workers (French & Williamson, 2016) to immigrants (Newell et al., 2020), young parents (Greyson, 2017), and refugees (Andrade & Doolin, 2019),

studying goal-oriented practices centred on information can provide insightful results even without adopting a practice-based epistemology.

Yet, the very fact of associating "information behaviour" and "information practices" with such different epistemologies (Wilson, 2008) can strengthen the confusion (and the perceived interchangeability) between two labels – behaviour and practice – which *should not be conflated at all* (Shove, 2010):

> Whereas social theories of practice emphasise endogenous and emergent dynamics, social theories of behaviour focus on causal factors and external drivers. Likewise, people figure in the first case as carriers of practice and in the second as autonomous agents of choice and change. It is useful to be clear about the incommensurability of these contrasting paradigms, and hence about the impossibility of merger and incorporation. (p. 1279)

It is mostly because of this incommensurability that the individualistic notions lying beneath the concept of "information practice" are an obstacle to the actual incorporation of practice ideas (Cox, 2012). On the one hand, the analytical problems typical of behaviourism remain open (Savolainen, 2007): how can unobservable components like cognitive processes be considered? How should the context be defined and connected with the information user in a plausible way? On the other hand, looking at CoPs as contexts where information-centred practices can be explored[22] relegates CoPs to the background as simple "sites" in and around which various interacting elements are explored. Though effective in certain cases, such an approach cannot always work – and certainly not for this study.

As explained in Chapter 2, the Learning Alliance can be seen as a form of commonality, stemming from practices of education for sustainability, that needs to be cultivated over time. In this regard, CoPs theory (Wenger, 1998) maintains that the learning process through which commonality can be strengthened is founded primarily on the negotiation of meaning, and *only secondarily* on the acquisition of information and skills. Even if the epistemological issues mentioned above were set

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[22] See, for instance, Mansour (2020).

aside, the information practice framework would still pose the problem of justifying a focus on information that Wenger (1998) has never acknowledged in the first place.

Before addressing this specific issue, it is necessary to consider not only how collaboration and information sharing have been explored by LIS scholars, but also how the CoPs framework has been used so far both in the LIS field and in sustainability-related studies.

3.3 Collaboration and information sharing

A commonly used term, "collaboration" can involve "processes, structures, power, authority, rules, resources, expertise, awareness, behaviours, norms, commitment, expectations" (Pham & Tanner, 2014, p. 19). As complex and multidimensional as it is, such notion defies any straightforward definition or theory (Jain, 2017; Montiel-Overall, 2005), and it has been often used in various literatures as a synonym of "cooperation" and "partnership" (Pham & Tanner, 2014; Virkus, 2007). Yet there's a "broad agreement across the disciplines" on depicting collaboration in terms of

> interdependence, mutuality and commitment to working together to achieve common goals, shared effort, shared responsibility and accountability, shared resources and outcomes, voluntary participation and values such as fairness and caring for others. (Pham & Tanner, 2014, p. 19)

When it comes to considering collaboration in education, most LIS literature focused on schools, universities, and libraries (Pham & Tanner, 2014) sees it as a process "that specifically focuses on the activities of teaching, learning and researching among educational participants" (Pham & Tanner, 2015, p. 3; Whipple, 1987). The goal is usually that of improving teaching and learning practices, developing research skills, and enhancing the curriculum, with participants commonly represented by teachers/academics, students/learners, researchers, librarians, administrators, and other information specialists (Pham & Tanner, 2014).

Xiao's (2010) case study, for example, describes an American college's librarian-faculty collaboration project through which information literacy has been successfully integrated into Blackboard. Ellis and Philips (2013) have explored the

collaboration between librarians and students in an Australian university to encourage the reconceptualization of spaces, design, and services. Madge (2018) has studied the collaboration between Romanian academic libraries to understand the role they play within the university community and its research activities, the importance attributed to cooperation, and the strengths and weaknesses of the ongoing collaborative activities. Baquee et al. (2021) have focused instead on the use of social media in collaborative learning between post-graduate students to highlight synergies, barriers, and educational purposes. An even more recent example is that of a faculty-librarian collaboration model designed by Tuamsuk and Nguyen (2022) to support both teaching and research activities at four universities in Vietnam.

3.3.1 Factors affecting collaboration

The potential obstacles to collaboration identified by Jain (2017) include cultural differences between teachers/educators and librarians, bureaucratic procedures, insufficient funding, lack of transparency, inadequate understanding of the assets, skills, and expertise to bring into the partnership, a lack of formal policies, and a low motivation to collaborate. Pham and Tanner's (2015) study, based on Giddens' structuration theory[23], mentions instead spatial dispersion across different sites, the heavy workloads of most academics, and power asymmetries. Since the project they consider changed the status of some academics to "professional" and moved them to the library, there were issues of perceived loss of power and academic autonomy "evident in some collaborative relationships between academics and librarians, academic skills advisors and librarians, and academic skills advisors and academics" (Pham & Tanner, 2015, p. 8). The authors describe power asymmetries between diverse professional backgrounds and cultures as a "significant challenge" for collaboration, which can be overcome "only with time and growing experience in working together and developing mutual understanding" (Pham & Tanner, 2015, p.

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[23] See Chapter 2.

10). Though easily understandable, this emphasis on time as a key prerequisite for developing solid collaborations (see also Nikiforos et al., 2020) must be noticed for the importance that CoPs theory (Wenger, 1998) grants it. Tuamsuk and Nguyen (2021) indicate the scarcity of resources and competences, and the lack of a strategic plan, as the main obstacles to a proficient collaboration between faculty and librarians. And in the case of collaboration on social media platforms, the barriers identified by Baquee et al. (2021) are primarily unreliable information and low security standards.

As for the factors that can instead promote collaboration, Pham and Tanner's (2015) embedded multiple case study, set in an Australian university, describes an environment where partnerships have evolved naturally (without either established structures or rules) between members of the library and academic staffs. The evidence suggests that this has been possible thanks to the individual characteristics of participants (well-meshing personalities, interpersonal and communication skills, perceived competence and knowledgeability) and to their already good personal relationships (Pham & Tanner, 2015). In their conclusion, the authors point out that effective collaborative partnerships between library staff and academics (a) demand mutual respect; (b) are made easier by physical proximity and face-to-face interactions; (c) acknowledge and address power asymmetries; (d) require competent individuals; (e) depend of responsiveness, flexibility, and a focus on continuous improvement; and (f) are fostered by the pursuit of common projects and activities aiming to improve the research or educational experience (Pham & Tanner, 2015). Tuamsuk and Nguyen (2021) have identified other favourable conditions, like investing on crucial resources and competency improvement or setting up supportive policies and networks. According to them, however, it is perception to represent "the most important and the decisive factor" for a successful collaboration: if people did not truly believe that collaboration could yield benefits, then it "would never happen or take place sporadically, individually and hard to succeed, or when two parties have needs" (Tuamsuk & Nguyen, 2021, p. 99).

The general recommendations on collaboration provided by LIS scholars to universities and libraries follow similar lines. Concerned with the provision of networked hybrid services to lifelong learners in rural areas, Mackay (2001) suggests creativity and flexibility. Pham and Tanner (2014) emphasize the importance of building on minor achievements "to establish a pattern of success and reputation for responsiveness to develop the trust and confidence among partners that are essential for more ambitious collaborative projects" (p. 35). Finally, both Jain (2017) and Madge (2018) recommend a change of mind-sets (from silo to collaborative mentality) and the arrangement of more frequent events to share information.

3.3.2 Information and knowledge sharing

Although studied in the LIS literature for at least four decades – one of the first researchers to draw attention to its role was Wilson (1981) – the concept of information sharing has not been considered as much as information seeking and use (Pilerot, 2012). One of the reasons might lie in the conceptual multitude and vagueness that have made difficult to clearly separate it from similar activities, collaboration included (Pilerot, 2012, 2013). From the overarching concept of "collaborative information behaviour" to "information exchange", and down to more specific analytical concepts such as "strategic" and "directive" information sharing, this notion has been addressed and formulated in numerous ways (Pilerot, 2012).

Even the meaning of the term "sharing" has changed over the years: whilst before the advent of digital technologies it was mostly about "exchanging" information, after the rise of social platforms this notion has been more and more frequently identified as a combination of exchange and distribution (Ahmad & Huvila, 2019; Wittel, 2011).

Information sharing can be defined as

a set of activities by which information is provided to others, either proactively or upon request, such that the information has an impact on another person's (or persons') image of the world (…) and creates a shared, or mutually compatible working, understanding of the world (Sonnenwald, 2006, as cited in Savolainen, 2017).

This definition offers two main advantages. On the one hand, it manages to conflate information sharing and knowledge sharing, two terms often treated as synonyms (Pilerot, 2012; Wilson, 2010). Savolainen (2017) argues that such conflation is essentially correct: though "information sharing" is preferred in LIS studies while "knowledge sharing" is a more popular term in management science, strategic management, and human-computer interaction, their respective meanings are largely similar.

On the other hand, this definition is able to combine the two not mutually exclusive views of communication ("transmission" and "ritual") that Savolainen (2017) draws from Carey (1989) as a foundation for his study. While the transmission view (quite common in contemporary societies) sees communication along the lines of Claude Shannon's information theory, the ritual view finds its archetypal model in the ceremonial forms that draw people together in fellowship and commonality (Carey, 1989). In the first case, communication is simply "the act of imparting information" – that is to say, "the transmission of signals or messages over distance to people who are posited as recipients of such signals and messages"; in the second case, it is the representation of shared beliefs (Savolainen, 2017). I'll return to this important distinction in the final part of this section.

3.3.3 Factors affecting information sharing

Although information sharing, with its antecedents and consequences, has been researched in different areas (Ahmad & Huvila, 2019), a relevant part of its literature can be associated with industrial organisations (Wilson, 2010). This is due not only to the widely acknowledged importance granted to information/knowledge sharing as a key strategic activity for organisations (Ahmad & Huvila, 2019; Heinström, Ahmad, Huvila, & Ek, 2021), but also to the popularity gained in this field by the concept of communities of practice[24].

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[24] Information sharing is often assumed to be one of the principal benefits brought by the emergence of communities of practice (Ahmad & Huvila, 2019).

It is therefore primarily in relation to industrial organisations that factors such as leadership, organisational culture, trust, personality, sense of coherence, proximity, and risk/benefit trade-off have been identified in the literature as influential on information sharing between individuals (Ahmad & Huvila, 2019; Pilerot, 2013; Wilson, 2010). Yet similar factors are important for information sharing in the academic world as well. In her comparative quantitative study of the social factors driving scientists' information sharing, Haeussler (2011) suggests that – in both academia and industry – the likelihood of sharing is affected not only by the competitive value of the requested information, but also by social factors such as expected reciprocity and perceived conformity to open science on the part of the scientists' community. Thus, as in the case of collaboration, perception can make a significant difference: it is the extent to which scientists perceive their community to conform to the norm of open science, argues Haeussler (2011), that eventually influence the will to share information.

An ethnographic study, carried out by Kim and Roth (2011) among experienced elementary teachers, indicates however that collaboration and information sharing are unlikely to happen without common beliefs or philosophy. Teaching is seen by participants as "a lengthy and endless learning process", and school culture can either support or obstruct information sharing (Kim & Roth, 2011, p. 23).

Lack of rewards, recognition, and trust have been identified as significant barriers to knowledge sharing in the survey that Chong et al. (2014) have conducted on the academic staff of a few public and private universities in Malaysia. Interestingly, another finding emerging from this survey – academic staff do not hoard their knowledge to exert power (Chong et al., 2014) – is at odds with the conclusions of Muqadas et al. (2017), who have studied the challenges to knowledge sharing in the public universities of some developing countries. Here, they argue, the knowledge sharing practices of staff members have shown to be negatively affected

by the inclination to hoard knowledge to gain power, influence, authority, promotion opportunities, and employee favouritism (Muqadas et al., 2017).

3.3.4 ICTs mediation: the importance of socio-cultural factors

Other researchers have focused instead on what happens when ICTs – mostly social networks – is brought into the equation.

In their survey, conducted across 20 selected schools in Perak (Malaysia), Yassin et al. (2013) point out that the intention to use ICTs in knowledge sharing is significantly affected by the culture dominant in the single school, but not by reward and recognition. In general, however, it is social influence to represent the strongest predictor of ICTs use in knowledge sharing (Yassin et al., 2013). The importance of socio-cultural factors stems also from a study centred on the largest online professional community of practice (CoP) of teachers in Taiwan (Tseng & Kuo, 2014). Aiming to identify the critical factors that nurture cultures of participation and how such factors could impact knowledge sharing within this community, the study suggests that closer connections among members can bring greater mutual recognition and altruism (Tseng & Kuo, 2014). Culture might also play an influential role of mediation between trust and online information sharing. Through the direct comparisons of Chinese and German participants, Liu et al. (2015) have conducted a cross-cultural study involving German and Chinese users. The former, who belong to an "independent" culture valuing the individual over the social, trusted online communication less than face-to-face interactions; Chinese participants, whose "interdependent" culture sees individuals as relational beings, tended instead to encourage both online and offline interactions (Liu et al., 2015).

In sum, successful online knowledge sharing cannot be reduced to the technical dimension: encouraged by pro-social commitment and perception of self-efficacy, interpersonal connections do contribute to "sharing group resources, formulating working strategies, taking collective action, and promoting organisational performance" (Tseng & Kuo, 2014, p. 44). Very similar conclusions are

drawn by Cansoy (2017) in his qualitative study of a WhatsApp group of school science teachers seen as an online CoP.

Not all studies, however, support this view. Hood (2017), for example, questions online CoPs as a default option to promote collaboration and social learning between teachers. Focused on two online platforms for knowledge sharing, this work points out that true collaboration and social learning represented the exception rather than the norm (Hood, 2017).

3.3.5 Complex phenomena, ambiguous results

Like collaboration, information sharing represents a multidimensional and complex phenomenon (Wilson, 2010). As affected as it is by a wide array of factors (socio-cultural, contextual, power-related, etc.), it has been studied from multiple standpoints with not always coherent results. A telling example is offered by the general assumption that associates information sharing with positive outcomes, and information asymmetries with negative ones (Henttonen et al., 2016). As Muqadas et al. (2017) point out, there are numerous studies – from McConnell (1991) to Park and Kim (2015) – that describe knowledge sharing as an activity that can foster positive outcomes such as creativity, performance and learning, technological innovation, and improved problem solving.

This assumption, however, is not always backed by evidence. In their review of the empirical supply-chain management literature, Kembro and Näslund (2014) have not found any strong proof of the benefits that information sharing should bring, while Tong and Crosno's (2016) meta-analytic review of the literature on business-to-business exchange relationships shows that sharing information with external actors could even lead to *decreased* performance and trust. Similar results characterize studies conducted on social platform users as well. Kim et al. (2015), for example, have identified tie strength as a solid, consistent predictor of sharing activities in the *opposite direction* to their original hypothesis: since social media users tend to form

new, weak ties rather than to reinforce those already existing, information is more likely to be shared between loosely connected people.

Along similar lines, a national survey carried out by Wang (2020) on 449 employees working for large organisations in the United States has found that, contrarily to trust, relational satisfaction with the employer doesn't seem to be a significant predictor of positive information sharing about organisational problems on social media. The reason, argues Wang (2020), might partially lie in the intense use of social platforms, where sharing takes place regardless of the degree of satisfaction with one's organisation. Results can be ambiguous also in the case of information sharing between teachers. Cook et al. (2017), for example, have explored this topic to help Norwegian children's early adjustment in elementary school: their idea was to understand whether promoting information sharing between preschool and elementary school teachers can be useful in this regard. According to their findings, "there appeared to be both positive and negative associations between teacher contact and child outcomes": while some educators "used information sharing as a tool for tailoring their teaching practices to better support individual children's strengths and needs", others might be "negatively biased by learning of children's earlier learning or behaviour struggles" (Cook et al., 2017, pp. 15-16).

3.3.6 Deconstructing information sharing

As suggested by Ahmad and Huvila (2019), such ambiguous findings are more understandable if one acknowledges that the advantages and disadvantages of information sharing *always* depend on contextual and situational factors – and, thus, on a multiplicity of small effects constantly at play:

> When it comes to studies of such extraordinarily complex systems as the body or the brain, the economy or society, it's rare for scientists to find one factor that has a massive effect on another. Instead, most of the psychological, social and even medical phenomena we're interested in are made up of lots of small effects, each of them playing a small role. (Ritchie, 2020, p. 139)

The work of deconstruction of the concept of information sharing made by Beynon-Davies and Wang (2019) is interesting in that it also addresses – though only tangentially – these issues. The nature and importance of information sharing are not clear at all, argue the authors, because in the literature this notion "is either never explicitly defined or defined in a tautological manner using concepts which remain unquestioned" (Beynon-Davies & Wang, 2019, p. 476).

Focused on two organisations participating in an international supply chain, this study questions the solidity of four implicit assumptions underlying most research in the field: (1) everybody knows what information is; (2) everybody knows that information can be shared; (3) information sharing necessarily improves institutional action; (4) the application of information technology inherently improves information sharing. On the one hand, the literature offers at least five distinct ways of signifying the term "information", each of them depending on "the full context of some system of action"; on the other hand, the very notion of "information sharing" poses some empirical issues, for "many such situations of apparent information sharing were perceived as problematic" within the organisations under study (Beynon-Davies & Wang, 2019, pp. 484, 490).

According to the authors,

> the central problem with the term information sharing is that it relies on a rather brittle convention of signifying information as stuff that can be manipulated, transmitted, and used in an unproblematic manner both within and between organisations. (Beynon-Davies & Wang, 2019, p. 477)

Such observations suggest that information sharing – re-defined as an accomplishment performed with and through systematic forms for organising data (Beynon-Davies & Wang, 2019) – shouldn't be de-contextualized, equated with the use of certain technologies, or understood through the transmission view of communication. Rather, it is the ritual view of communication (Carey, 1989) that can shed light on the real nature of information sharing by shifting the analytical focus on the performative, socio-cultural dimension of information.

A good example is offered by Pilerot and Limberg (2011), who conducted a set of semi-structured in-depth interviews with selected participants from a Nordic network for research on communicative product design. Moving from the understanding that people share information to sustain a common practice, this study approaches information-sharing activities as "intrinsically intertwined" with other information practices such as information seeking and use (Pilerot & Limberg, 2011, p. 312). ICTs are included as an important part of the arrangements of human and non-human entities forming the social site at the core of the study, and Schatzki's site ontology[25] provides the lens through which information practices are accounted for. Significantly, the authors conclude that the key to the proper understanding of information sharing is "diffused" – in the sense that this key resides in *all* constituent elements of practice rather than in one or few specific factors like motivation or trust (Pilerot & Limberg, 2011).

What explained in Chapter 2 makes clear why practice theories are well suited to explore information sharing from a standpoint coherent with the ritual view of communication – and why they can allow to explore information sharing from a more holistic perspective.

3.4 CoPs in LIS and sustainability studies

The CoPs framework has been widely used in business and academic settings to promote innovation and collaboration, facilitate knowledge management and information sharing, and support growth and change in professional environments (Belzowski et al., 2013).

CoPs represent both an educational model and an explorative framework that can be fruitfully applied to libraries, academia, schools, companies, and other types of organisations (Roberts, 2021). As an educational model, CoPs have informed the study of communities for professional development and of online

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[25] It includes notions such as teleo-affective structure and rules (see Chapter 2).

communities for teaching and learning: most of these studies are concerned with the factors favouring the growth and perpetuation of CoPs, and tend to see them as strategic resources for knowledge development and management (Murillo, 2012). As an explorative framework, CoPs have been used to understand specific issues pertaining, for example, to the development of information literacy and the negotiation of information practices: this is a viewpoint more typical of organisational studies, which tend to look at CoPs as organic, emergent, informal entities (Murillo, 2012).

As for CoP-based LIS research, it has been traditionally focused on three main (often overlapping) areas: libraries and academia (at the organisational and educational levels), knowledge management, and information technology.

3.4.1 Libraries and academia

In general, libraries see CoPs (both physical and virtual) as an effective tool to support professional development, foster internal and external collaborations and partnerships, promote information and knowledge sharing, launch educational initiatives, and improve the overall quality of the services provided to patrons.

Early on, Moore et al. (2004) advocated the implementation of this concept to leverage the limited resources of a Health Sciences library, while Lloyd (2005) used it to re-conceptualize information literacy as a cultural practice facilitating novice access to information and collective competency. Numerous studies have then been successfully conducted either to explore the implementation of CoP-based projects (Attebury et al., 2013; Belzowski et al., 2013; Henrich & Attebury, 2010) or to assess the existence of informal CoPs and their benefits, such as learning in practice and designing more effective library schools experiences (Bilodeau & Carson, 2015).

In terms of collaboration, CoPs have been suggested as a promising model to achieve various goals, from making librarians' support to academics more effective (Green, 2014) to building networks of libraries, colleges, universities, teachers and students for purposes of research, education, professional development, and

knowledge creation (Clifton et al., 2017; De Jager-Loftus et al., 2014; Osborn, 2017). Virtual CoPs, in particular, appear to be very helpful whenever physical distance is an issue to overcome (Kymes & Ray, 2012), a necessity (Kelly & Brody, 2022), or just a given as in the case of librarians belonging to different organisations (Qutab et al., 2022).

From a learning standpoint, CoPs can be encouraged in different contexts to better understand the needs of students and how to support their activities more effectively. A CoP of early-career education doctoral students, studied by Roberts (2021) to evaluate their identity development as scholarly researchers and writers, has been useful to appreciate the ways in which librarians and doctoral students can learn from one another.

The idea of turning classrooms into adapted CoPs has been explored instead by Freeburg (2018), who suggests some practical steps that can be followed by instructors to pursue this goal. Attention has been clearly paid also to academics, and to how they can share knowledge and work together more proficiently. Another research project, conducted by Badu and Badu (2016) on the administrators, lecturers, and professors at the University of Ghana, advocates the adoption of the CoPs model in spite of some inevitable challenges.

3.4.2 Knowledge management and ICTs

Given the huge popularity gained by the concept of CoPs in knowledge management studies during the 2000s (Du Plessis, 2008; Venters & Wood, 2007), it is not surprising that many CoP-based LIS studies have adopted this specific approach (Su et al., 2012).

Most authors seem to agree that, whilst CoPs cannot be purposefully engineered, it is nonetheless possible to understand and manage the contextual factors and circumstances favouring their emergence and perpetuation over time: from the skills of multidisciplinary teams of hospital librarians improving patient care (Bandy et al., 2008) to the management practices that can make online CoPs more

successful (Bourhis & Dubé, 2010); from the influence exerted by a company's knowledge management system on its managers' performance (Choi et al., 2020) to the impact of intentionally developed CoPs on knowledge sharing and practice improvement in the public sector (Jørgensen et al., 2021).

More ambiguous results characterize the combination of CoPs with ICTs for various purposes such as knowledge sharing, social learning, and support of information production and flow. An early ethnographic study, conducted in two organisations to understand knowledge sharing and the use of collaborative IT to support work practices, shows that the groups using ICTs most intensively featured the weakest CoPs (Hara & Kling, 2002). Similar conclusions are drawn by Hara (2007), who argues that IT forums are effective to share technical information, but weak when it comes to sharing cultural meanings on professional development.

Zhang and Watts's (2008) case study, however, suggests otherwise: concerned with the use of virtual platforms for knowledge management practice, it argues that CoPs can spring up in the online world "apparently unimpeded by limitations of the technology" (p. 69). Along similar lines, Murillo's (2008) model of online CoPs, shaped on Wenger's (1998) levels of learning in practice, claims that true communities of practice are not inherently limited to face-to-face interaction. More recent studies have confirmed such positive takes in relation, for example, to the optimization of knowledge sharing (Hafeez et al., 2019; Warden & Ogbamichael, 2018), or to the sharing of information practices in an online cosplay community (Vardell et al., 2021).

3.4.3 Sustainability

Today, there's a growing body of literature that rely on practice theories to explore the transition to sustainability through the understanding of how social practices materialize and work at the local level (see, for instance, Boyer, 2016; Mafle Ferreira Duarte et al., 2021; Ulug et al., 2021; Roysen, 2018; Roysen & Mertens, 2019; Temesgen, 2020).

Yet, it is only in recent years that CoPs – both in Wenger's (1998) version and in their broader, simpler meaning of "learning communities" – have gained traction among the researchers specifically interested in the learning processes of intentional communities and, in particular, of ecovillages (Mychajluk, 2017). There's indeed a still "very small literature" that

> certainly points to the relevance of the theory and the possible potential to utilize the CoP concept to explore both the processes of learning and the social co-construction of communities engaged in the various practices of sustainability. (Mychajluk, 2017, p. 184).

This literature includes studies like those conducted by Cato (2014), Bradbury and Middlemiss (2015), and Burke (2017) on grassroots sustainable community initiatives.

However, it is Mychajluk (2017) to have been one of the very first researchers to use legitimate peripheral participation (Lave & Wenger, 1991) and CoPs theory (Wenger, 1998) to study how learning takes place in ecovillages. In her case study, Mychajluk (2017) explores how the social competencies needed to live and work together in a Canadian ecovillage are learnt over time. Her key argument is that such a learning process – slow, often all-consuming, never-ending, and widely supported by community resources and practices – is very important also to obtain "crucial insight into a part of a much broader process of education and learning for a transition to sustainability" (Mychajluk, 2017, p. 191). In her conclusion, Mychajluk (2017) points out two central aspects: (1) in addition to technical innovation, sheer social competences such as inclusive discussion and decision-making, honest and compassionate communication, non-violent conflict resolution, and personal growth "may actually be key to supporting the community-building that some would argue is foundational to sustainability" (p. 191); (2) the role that power inequality might play within sustainability practices shouldn't be overlooked: an example is offered by the ecovillage's renters (residing there only until someone who can afford to buy comes along), who "expressed a tendency to moderate their interactions based on their real and perceived position of being relatively less powerful" (p. 190).

A more recent case study (Ulbrich & Pahl-Wostl, 2019) suggests that the German permaculture community features some key traits of CoPs. Wenger's (1998) CoPs theory, holding the potential to offer valuable analytical insights "while being of direct practical guidance for communities" (Ulbrich & Pahl-Wostl, 2019, p. 16), has proved useful to address some internal challenges such as the absence of a common strategy to connect individuals with coordinated activities.

3.4.4 LIS and sustainability

In the LIS field, studies combining practice theories and sustainability are still very sparse. As recently emerged from a detailed review of 81 publications (journals and conference proceedings), the field's productivity on the general topic of sustainability has stalled after reaching a peak in 2010, with thematic priority granted to libraries and ICT infrastructures (Meschede & Henkel, 2019). When the area of research is narrowed down to studies based on practice theories, productivity is clearly much lower.

Among the most notable contributions, it is opportune to mention Nathan's (2012) ethnographically-informed case study of two US ecovillages, which is based on Savolainen's (2008) framework. Allegedly the first work to introduce the notion of "sustainable information practices", this study shows that the ecovillagers under observation were scarcely aware of the environmental sustainability of their information practices and tools (Nathan, 2012). The survey carried out by Murgatroyd and Calvert (2013) was meant instead to identify the information practices on climate change prevailing in a network of Pacific regional bodies. What emerges from this study is the existence of a CoP (Wenger et al., 2002) whose members regard libraries as a less useful way of seeking and sharing information in comparison with face-to-face encounters and personal relationships (Murgatroyd & Calvert, 2013). By building on Nathan (2012), Cerratto-Pargman et al. (2016) conducted an ethnographic study on the digital sustainable information practices of a Swedish ecovillage: based on a socio-ecological perspective, their analysis points out that in such communities

ecological values are not sufficient, on their own, to make the use of internet fully conform to ideals of sustainability. The relationship between information and sustainability takes centre stage also in the work of Chowdhury and Koya (2017), who present a thematic analysis of four key UN policy documents on sustainable development. Moving from the premise that information schools can play a key role in helping people, institutions, and businesses to achieve UN's sustainable development goals (SDGs), Chowdhury and Koya (2017) identify some areas of teaching and research relevant to this purpose.

In the specific case of the Ecovillage of Cloughjordan, the only study (a PhD dissertation) conducted so far by a LIS researcher explores the ICT-based everyday life information-seeking (ELIS) activities of the whole community (McLoughlin, 2016). Based on a mixed methodology, this work relies on Savolainen's (1995) model to investigate how ELIS behaviour has been impacted by the adoption of internet technology, seen both as an information source and as a mediating tool (McLoughlin, 2016).

3.4.5 Three versions of CoPs theory

It is essential to point out that the term "CoPs" used in the literature doesn't refer only to Wenger's (1998) theory. Beside Lave and Wenger's (1991) seminal work, there are two more versions that must be considered.

While the CoPs framework proposed by Brown and Duguid (1991), centred on organisational learning and the improvisation of new practices, is sparsely mentioned in the literature, CoPs' "managerial" reformulation (Wenger et al., 2002) has become dominant. Focused on innovation and problem solving in the corporate world, this version is "a popularization and a simplification but also a commodification of the idea of community of practice" (Cox, 2005, p. 533). Compared to Wenger's (1998) original contribution, this is "not just a change of tone or position; it is simply a different idea":

> Ethically there has been a shift from a concern to reveal and celebrate the value of
> what people know, especially in seemingly routine or mechanical jobs, to a concern to

> design a tool for management to manage 'knowledge workers' and experts in blue chip companies. (Cox, 2012, p. 534)

Although Wenger's (1998) seminal work is still the most articulated theory available on CoPs[26], the version proposed by Wenger et al. (2002), much easier to implement, has become immensely popular in the field of knowledge management (KM)[27] and beyond (Su et al., 2012).

Most of the studies reviewed above are qualitative and rely on methods such as direct observation and semi-structured interviews, but only few of them use Wenger's (1998) original conceptualization of CoPs. Every knowledge management study mentioned in this review is based on the managerial version (Wenger et al., 2002), which is widespread also in LIS research. The studies set in libraries and academia which use Wenger's (1998) social theory of learning are indeed much fewer: not all of them implement this framework to the same degree or consider both its pillars – the negotiation of meaning and identity formation[28] – as equally important. Lloyd's (2005) approach, for example, does not imply an in-depth articulation of this framework; Kymes and Ray (2012) mention identity formation but not meaning negotiation; and Green (2014), who does refer to both dimensions of the negotiation of meaning (participation and reification), leaves identity formation unpacked.

More varied is the case of LIS research on ICTs, education, and information systems. Although it is possible to find many studies relying on CoPs as a managerial tool (i.e., Hafeez et al., 2019; Holmes et al., 2014; Pan & Leidner, 2003; Wang et al., 2021; Warden & Ogbamichael, 2018), in this area Wenger's (1998) original concept seems to have been implemented to a major degree. Both Hara and Kling (2002) and Hara (2007) overlook the negotiation of meaning but do consider identity formation.

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[26] Murillo (2008), for example, considers it the *de facto* standard, and since then no other major theory has been proposed on this subject.
[27] "Those who claim to be knowledge management practitioners or professionals must eat, drink, and breathe CoPs" (Su et al., 2012, p. 112).
[28] See Chapter 2.

A similar but more analytic approach is followed by Gallagher and Mason (2007), who explore identity formation through what Wenger (1998) defines the "modes of belonging" to a CoP: engagement, alignment, and imagination. Zhang and Watts (2008) focus instead on CoPs' levels of learning (mutual engagement, joint enterprise, shared repertoire), whilst Yukawa (2010) considers both meaning negotiation and identity formation in sufficient detail to develop her CoP-based blended learning model.

Of the three versions mentioned above, it is certainly Wenger's (1998) CoPs theory to best suits the peculiar needs of the Learning Alliance project. It is an articulated and nuanced model that puts learning centre-stage and grants equal relevance to meaning (what the practice is about) and power (the ability to define competence) – two factors without which the Alliance could never come to exist in the first place.

Yet there's still one issue that needs to be addressed: how is it possible to connect information-related activities with learning in practice in a way that respects not only the epistemological assumptions of CoPs theory (Wenger, 1998), but also its specific view of information? To answer this question, it is necessary to go back to what discussed in section 3.2.

3.5 CoPs: from information practices to information in social practice

Over the years, CoPs theory and information sharing have been sparsely combined in the literature in different ways and for different purposes (Cox, 2012). Only very rarely has Wenger's (1998) theory been used to address information sharing issues by considering both the negotiation of meaning and identity formation.

Studies such as those of Hara and Kling (2002), Hara (2007), Gallagher and Mason (2007), Murillo (2008), Zhang and Watts (2008), Yukawa (2010), and De Jager-Loftus et al. (2014) rely on Wenger's (1998) CoPs theory to explore information uses and needs, but do not refer to the literature on information behaviour or practices.

Pham and Williamson's (2018) case study, focused on the academic and library staff of two universities, addresses the interconnection between information

sharing and collaboration through Giddens' structuration theory[29] and Wenger's (1998) CoPs theory. The authors argue that collaboration and information sharing imply each other, but their focus is on structuration: whilst they consider information sharing an important area of human information behaviour, they do not address its connection with the learning dimension of CoPs.

Mansour's (2020) offers an example of information practices negotiated within a community over time. Her study is centred on an online CoP, a multicultural Facebook group of foreign mothers living in Sweden who share information about parenting practices to support each other: when they start clashing for socio-cultural divergencies, their information practices change to cope with rising tensions (Mansour, 2020). In a similar way, Vardell et al. (2021) aim to understand the information practices of an online cosplay Facebook group through the use of qualitative methods, and they refer to the literature on information behaviour. Both Mansour (2020) and Vardell et al. (2021) use the concept of CoPs mostly as a background, without unpacking it, and they never explicitly mention either the negotiation of meaning or identity formation.

One of the rare studies addressing in sufficient detail the relationship between CoPs (Wenger, 1998), negotiation of meaning, and information practices is that conducted by Camilla Moring (2011) in a Danish transport company. With a focus on the workplace seen as a CoP, this ethnographic study investigates the technical information practices (seeking and access) of two newly recruited sales assistants. Interestingly, such practices are seen as part of the newcomers' learning process: in other words, Moring (2011) takes into account the negotiation of meaning at the core of the CoP and looks at information practices as objects of this negotiation. The study concludes that information seeking as a practice "contributes to the local negotiations of competent participation, but at the same time the 'meaning' attached to information seeking is created through participation in practice" (Moring,

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[29] See Chapter 2.

2011, p. 17). In a more recent theoretical contribution, Moring (2017) elaborates on the role of information seeking in newcomers' socialization and learning, and advocates a development in research on learning in practice.

Finally, Lloyd and Olsson (2019) are similarly concerned with learning in practice, but their attention is on identity formation. In their ethnographic study of the embodied information practices of a community of car restorers, they define the relationship between such practices and identity construction as "a central one for our field" that "narrower approaches focused on individual information seeking are not equipped to address" (p. 1321). Their conclusion is that car restorers prefer the personal social networks they have developed over online resources and communities because, in a sense, they "are not only rebuilding their cars but also their own sense of self" (Lloyd & Olsson, 2019, p. 1311).

3.5.1 Information in social practice

As explained in section 3.2.1, the fundamental incompatibility between behaviour and practice (Shove, 2010) poses serious theoretical challenges to whoever is interested in relying on CoPs to address information-related issues.

The introduction of the information practice framework has not allowed to fully overcome these challenges. While information sharing, for example, tends to shift the analytical focus towards the activities and goals of the single participants (and, at the same time, towards isolated factors such as information transfer, motivation, trust, and mutual beliefs), the practice view implies a much more holistic understanding – and, in its stronger version, a radically different epistemology. Wenger's (1998) CoPs theory, in particular, does not assume the single practitioner as a point of departure and is concerned not with individual goals, but with socio-cultural learning processes. It is in this light that the "diffused" approach to information sharing advocated by Pilerot and Limberg (2011)[30] seems to represent a

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[30] See section 3.3.7.

plausible way to look at this specific activity without contradicting the foundational assumptions of CoPs theory (Wenger, 1998). But how can this approach be operationalized?

The concept of "information in social practice" (Cox, 2012, 2013) might offer a tentative answer to this question (and to the issues raised in section 3.2.1) by conveying the argument that *practices must take centre stage over information* if a coherent epistemology is to be adopted.

Moving from the undisputable fact that daily information activities are woven through *all* social practices – a tendency that digital technologies have only made more and more pervasive – Cox (2012) points out that "[t]he logic of practice theories is that what is information is specific to a practice" (p. 184):

> All social practices involve information use, creation and seeking, but this does not make them information practices, because only a few practices are specifically information oriented. (…) Thus we need to look at the information aspect of all social practices. Escaping a narrow preoccupation with goal-oriented information seeking, we need to first ask within any practice what, for social actors, constitutes information, and then how do they find, use, create and share it. (p. 185)

The example of family photography is very helpful to clarify this view:

> Although the information the photos contain is important to their use, one would hesitate to see family photography as an 'information practice'. It is clearly more to do with building togetherness than with seeking or sharing information. (…) How the photo is used as information (whether it is understood using that term, and its nature as information) is highly coloured by the specific practice. (Cox, 2012, p. 185)

Cox's (2012) notion of information in social practice shifts the focus of analysis from how practitioners "deal with information" to "what is informative" to the practice under scrutiny.

Once applied to CoPs theory (Wenger, 1998), this concept implies that something is informative to a given practice *to the extent to which it feeds the negotiation of meaning through which that practice performs commonality*.

In such terms, exploring how the single participants seek, use, and share information – though important to describe ongoing practices – is clearly not sufficient to understand how information could support more effectively the

development of the Learning Alliance. It is also necessary to look at information (whatever it represents to CEV's practices of education for sustainability) as a factor in the interplay between participation and reification.

Whilst "reified" information is easy to imagine (from the notes taken during a meeting to the exchange of documents and online messages), "participative" information is subtler to grasp because of the tacit dimension it entails. Apart from verbal exchanges, there are many unarticulated aspects – from embodied understandings to various types of intuition or sensitivity – that can prove informative to the negotiation of meaning. The tacit

> includes all the implicit relations, tacit conventions, subtle cues, untold rules of thumb, recognizable intuitions, specific perceptions, well-tuned sensitivities, embodied understandings, underlying assumptions, and shared worldviews. Most of these may never be articulated, yet they are unmistakable signs of membership in communities of practice and are crucial to the success of their enterprises. (Wenger, 1998, p. 47)

Both reified and participative modes of information are being increasingly mediated by digital technologies. From a CoPs (Wenger, 1998) perspective, ICTs simply provide additional ways of engaging with people which can be both participative and reified: while the former implies the mediation of social interaction (a conversation on Zoom, for example), the latter leads to the production of digital objects like messages and videos. The notion of information in social practice (Cox, 2012) is flexible enough to be used to explore such ICT-mediated ways of informing without any further adaptations.

3.6 Conclusion

The Learning Alliance project can be seen as a collaborative endeavour in education for sustainability that demands interdependence, mutuality, commitment to working together, and the sharing of responsibility, accountability, and values.

The extant literature shows that both CoPs and information sharing can strengthen collaboration by counter-acting the several obstacles – such as irreconcilable cultural differences, overwhelming bureaucratic procedures, heavy

workloads (and, thus, lack of time), and power asymmetries – that might affect the feasibility of this project. There are nonetheless some caveats to consider.

On the one hand, CoPs represent informal entities that cannot be engineered on purpose. Though most of the studies reviewed in this chapter maintain that it is possible to identify and manage the contextual factors and circumstances favouring their emergence and perpetuation over time, the temptation to reify CoPs as concrete, full-fledged entities must be resisted.

On the other hand, the literature shows that the very notion of "information sharing" is meaningful (from a practice perspective) only to the degree to which it is contextualized and approached from a holistic standpoint. To make this ambiguous notion epistemologically coherent with the theoretical foundation of Wenger's (1998) CoPs theory, this study adopts the concept of information in social practice (Cox, 2012) as a more suitable alternative to that of information practices. Though the literature does provide some examples of information practices explored in combination with the CoPs framework, in such cases the analytical focus is usually kept on individual activities and goals. While the latter are certainly relevant at a descriptive level to render the structure of a practice, at a learning level Wenger's (1998) CoPs theory requires a fundamental analytical shift – *from how practitioners deal with information to how information affects the way in which practices perform commonality*. And how practices perform commonality depend on the negotiation of meaning as well as on identity formation (Wenger, 1998), both of which should be taken into account.

By focusing on what "information" represents to a given practice, the notion of information in social practice allows to shift the attention from individual concerns and goals to the central dimensions of practices performing commonality (Wenger, 1998): meaning and power.

Chapter 4

Methodology and methods
of data collection

4.1 Methodological challenges and choices

Adopted to approach sustainability from the locally rooted standpoint (Boyer et al., 2016) necessary to explore ecovillages, the practice-based view informing the theoretical framework introduced in Chapter 2 has guided the design of this study and shaped its research questions.

Combining different theories was opportune not only to deal with the peculiar challenges posed by the Learning Alliance project, but also to provide a thicker account of the phenomena under observation and avoid simplifying complex problems (Nicolini, 2012). While doing so, it was however essential to make sure that theories and methods were coherently combined in terms of ontological assumptions and methodological choices. Hence the adoption of the "theory-method package", a "toolkit" proposed by Nicolini's (2012) to pursue three major goals:

> First it needs to help us in building or slicing the social world in terms of practices instead of, say, systems or classes or rational economic actors. (…) Second, the theory-method package must also help us to re-present practice in the text. Although practices are not difficult to find, as this is what we are and what we do all the time,

they are famously recalcitrant when it comes to being transposed in a text. (…) Third, (…) the theory-method package needs to be articulative and not eliminativist. In this sense, it has to offer resources for building narratives and for plotting the world, not readymade plots to be stitched upon 'phenomena'. (p. 218)

Coherence between theory and method is particularly relevant in the case of practice theories because the latter do not always provide the clues to operationalise their concepts. Schatzki's theoretical outline, for example, has been criticised for not being sufficiently articulated in this regard: since what he prescribes about participant observation is quite vague, a powerful methodological principle along the lines of Latour's "follow the actor" is missing (Nicolini, 2012). Similar issues concern also the implementation of Wenger's (1998) CoPs theory, which – for all its complexity and nuances – never really separates "practice" from "community" and treats the former as an indistinct, bounded unity (Nicolini, 2012).

It is in this sense that the use of both theories raises questions about how to view and describe the bundle of practice in a consistent and effective way. What Nicolini (2012) suggests to do through his theory-method package consists of three main stages: (1) identifying the aspects of a practice (from its internal features to its external connections) that need to be explored to address the research problem; (2) considering the theories and methods that can be used, possibly in combination, to study those aspects; (3) relying, for each aspect, on a set of "sensitizing" questions (Table 4.1).

While such questions are meant to provide a clue to critically look at a practice – "my invitation to see", writes Nicolini (2012, p. 219) – the movements of "zooming in" and "zooming out" represent "a strategy to 'cut' the world in terms of a nexus of interconnected practices" (p. 219). These movements need to be reiterated until it becomes sufficiently clear

why the practice is practised in the way it is, how it came to be this way, why it is not different, what are the consequences and effects that this state of affairs produces on the world at large, and what is different and who is empowered or disempowered in the process. (Nicolini, 2012, p. 239)

Table 4.1

The theory-method package (adapted from Nicolini, 2012)

Focus on practice	Principal theories and methods available	Examples of sensitizing research questions
Sayings and doings	Historical activity theory, Heidegger/Wittgenstein tradition, Discourse analysis	What are people doing and saying? How do the patterns of doing and saying flow in time? What temporal sequences do they conjure? With what effects? Through which moves, strategies, methods, and discursive practical devices do practitioners accomplish their work?
Interactional order	CoPs theories, Historical activity theory, Ethno-methodology	What sort of interactional order is performed by this specific practice? How does this differ from similar practices performed elsewhere? What type of collective interests are sustained and perpetuated by the specific practice? How are asymmetries and inequalities produced or reproduced in the process?
Timing and tempo	CoPs theories, Discourse analysis	How are the sayings and actions temporally organised? How do the patterns of doing and saying flow in time? What temporal sequences do they conjure? With what effect? What temporality/rhythm is produced by the practice?
Bodily choreography	Giddens/Bourdieu's praxeology, Heidegger/Wittgenstein tradition	What is the material and symbolic landscape in which the practice is carried out? How is practice accomplished through the body? What sorts of things are made present in the scenes of action through the bodies?
Tools, artefacts, and mediation work	CoPs theories, Ethno-methodology	What artefacts are used in the practice? How are the artefacts used in practice? What visible and invisible work do they perform? In which way do they contribute to giving sense to the practice itself? What connections do they establish with other practices? Which type of practical concerns or sense do artefacts convey to the actual practising? What is the intermediation work they perform?
Practical concerns	Historical activity theory, Heidegger/Wittgenstein tradition	What are the mundane practical concerns which ostensibly orient the daily work of the practitioners? What matters to them? What do they care about? What do they worry about in practice? What do they see as their main object of activity? Where do they direct their efforts?

Focus on practice	Principal theories and methods available	Examples of sensitizing research questions
Tension between creativity and normativity	CoPs theories, Ethno-methodology, Heidegger/Wittgenstein tradition	What are the main ways in which practitioners make themselves accountable in practice? What do they do? How do they talk about it? What are the contentious areas of the practice? Where are the main tensions? For example, are the tools and the practice actually aligned or are there conflicts and tensions between them? And what about the formal and informal rules? In which direction is the practice being stretched?
Processes of legitimation and stabilization	Giddens/Bourdieu's praxeology, CoPs theories, Discourse analysis	How are novices socialized? What are they told? Do the practitioners use the practice to identify themselves as a community? How are practices made durable? What doings, sayings, and artefacts are employed for the purpose?

4.1.1 On methods and research questions

The palette reproduced in Table 4.1 has been adapted to the theoretical framework of this study by (a) selecting the sensitizing questions most relevant to its research problem and questions, and by (b) adding some new areas of focus on practice with their related questions (as in the case of information in social practice). Such changes are prompted by Nicolini (2012) himself, who sees this toolkit as neither "cast in stone" nor "meant to be applied formulaically" (p. 240).

Once identified a suitable palette for zooming in and out effectively, I have chosen to found data collection on a set of methods traditionally associated with ethnography – namely, participant observation, open-ended, semi-structured interviews, and field notes.

Ethnography is a form of social and educational research that provides approaches and methods suitable to study human and non-human actors in their everyday context (Hammersley, 2006). Though its focus is in part different from that of practice theories, more concerned with everyday *activities* in their social and historical situatedness (Nicolini, 2017), its methods can be extended to the study of

practices (Nicolini, 2012). On the one hand, Schatzki's (2002) conceptualization of practice demands a focus on specific components (general and practical understandings, rules, teleo-affective structure) that can be studied only by talking to people and by observing what they do in relation to the other elements of the practice they carry out. It is Schatzki himself, after all, to recommend participant observation (Nicolini, 2012). On the other hand, Wenger's (1998) CoPs theory – itself founded on an ethnographic study – requires an attention to learning, meanings, and identities of participation that couldn't be understood without the insights provided by the qualitative methods traditionally associated with ethnography.

In more general terms, ethnography and practice theories do share a common interest in the understanding of everyday and working life as rooted in specific contexts. While it has been argued that practices, rather than being bound to specific places, are characterized by their reproduction in multiple sites, it is also undeniable that settings enable different arrangements and enactments of practices (Carlsson et al., 2013). Ethnography and practice theories are also both interested in rendering "thick descriptions" of settings and social worlds with their social and cultural meanings: exploring the multiple layers and nuances of practices requires a combination of different methods of data collection for which ethnography is well-suited (Nicolini, 2012). Finally, a practice-based view of the world is coherent with the traditional ethnographic attention to the "material culture" of settings (Hammersley & Atkinson, 2007).

The research questions of this study reflect the need to obtain a comprehensive understanding of the key elements of CEV's educational practices, and of how they are concretely carried out; the need to understand the ability of such practices to jointly perform the kind of commonality theorized by Wenger (1998); and the need to evaluate in what terms information in social practice (Cox, 2012) could be harnessed to foster this commonality – and, thus, the Learning Alliance. The methodology and methods described in this chapter suit such needs by allowing to focus on the material and immaterial elements (documents, artefacts,

technology, tools, meanings, relationships, discourses, understandings, etc.) that constantly generate and reproduce practices.

The theory-method package is explained in more detail in section 4.2, where its two fundamental mechanisms of zooming in and zooming out are illustrated. The key principles of ethnography are then described in section 4.3, which shows how practice and ethnographic principles are methodologically aligned in this study. The methods of data collection and data analysis (coding and interpretation in particular) are described respectively in sections 4.4 and 4.5, while section 4.6 briefly addresses data management- and research ethics-related principles and issues.

4.2 The theory-method package

The toolkit proposed by Nicolini (2012) to "map" practices prescribes the reiteration of three basic steps. *Zooming in* is essential to understand the morphology of a practice (its internal articulation of sayings, doings, artefacts, tools, etc.); *zooming out* looks at the same practice in its wider socio-cultural and historical context to identify its external connections and its evolution over time; finally, zooming in and zooming out need to be combined to offer a thick textual rendition of the practice (Nicolini, 2012). This is not meant to be an orderly, rigid sequence, for the whole process is often non-linear: what Nicolini (2012) calls "the rhizomatic character of the study design" implies the need to go "through multiple cycles of observation, analysis, and reflection" (p. 238). The terms "zooming in" and "zooming out", however, do not want to suggest that the social world can be observed from a neutral, detached standpoint. Moving *around* and *amid* practices is always necessary (Nicolini, 2012).

4.2.1 Zooming in

Zooming in means choosing the most significant aspects of a practice rather than putting the whole of it "under an ideal microscope" (Nicolini, 2012, p. 223). It is therefore possible to follow different paths.

One can give priority to the heterogeneous, socio-material texture of practice by focusing on (a) its multiple components (such as skilled, human, embodied actors, bodily choreographies, objects, and artefacts), and (b) their active contribution to the development of relationships between practices (Nicolini, 2012).

Another option is to bring forward and articulate the main goals and affects associated with the practice in order to explore its potential development and the social forces that could either support or undermine it.

A third way is to focus either on the dynamics behind change or on the factors promoting durability: since practices exist only to the extent to which they are enacted and re-enacted over time, they are simultaneously always open to both transformation and institutionalization (Nicolini, 2012; Wenger, 1998).

The duality change/durability can be explored by zooming in on at least four main aspects: learning, people, mediation, and links to other practices (Nicolini, 2012). "Learning" refers to the social process through which novices become increasingly able to master a practice (Lave & Wenger, 1991); "people" includes those who come to share, and make themselves accountable for, the same practice; "mediation" is the process through which the tools, instruments, and other objects which are part of practices' texture contribute to their durability; finally, the "links to other practices" describe a larger configuration supporting the accomplishment of multiple practices (Nicolini, 2012). Such examples of zooming in can rely on different theoretical approaches (to the degree to which they can be combined) and are not mutually exclusive. At the same time, however, it is also important to strike a balance between the need to provide a thick rendition of the practice and the scope of analysis.

To avoid losing focus, it is usually opportune to emphasize certain aspects and side-line others (Nicolini, 2012). Table 4.2 summarizes the specific sensitizing questions I've used to inform my interviews. On the basis of the theoretical framework described in Chapter 2, I have identified seven areas in CEV's practices of education for sustainability (from "sayings and doings" to "information sharing" and

Table 4.2

Zooming In

Focus	Theoretical resources	Sensitizing questions
Sayings and doings	Schatzki (2002)	• What are people doing and saying? • Through which moves, strategies, methods, and discursive practical devices do practitioners accomplish their work?
Physical & symbolic spaces, bodily choreography	Schatzki (2002)	• What is the material and symbolic landscape in which the practice is carried out? • How is practice accomplished through the body?
Tools, artefacts, and mediation work	Wenger (1998)	• What artefacts are used in the practice? How? • What visible and invisible work do they perform? • In which way do they contribute to giving sense to the practice itself? • What connections do they establish with other practices?
Information In social practice	Cox (2012) Wenger (1998)	• How, and to what extent, is information in social practice taking place? • What is "information" to the practice of education for sustainability?
Potential tensions	Schatzki (2002) Wenger (1998)	• What are the contentious areas of the practice? • Where are the main tensions? • What about the formal/informal rules and accountability?
Processes of legitimation and stabilization	Wenger (1998)	• Do the practitioners use the practice to identify themselves as a community? • What doings, sayings, and artefacts are employed for the purpose?
Ethical concerns	Schatzki (2002) Wenger (1998)	• What matters to practitioners in their daily work? Where do they direct their efforts? • How do they achieve their purpose? • How are they made accountable?

"ethical concerns") on which focusing my attention. For each of these areas, I have then chosen a set of questions meant to guide me during the preparation of the semi-structured interviews. Like signposts, such questions have been helpful to keep my attention on what mattered the most. In the case of the "ethical concerns" area, for example, the sensitizing questions stemmed from both Schatzki's (2002) teleo-affective structure and Wenger's (1998) joint enterprise: whilst the former is concerned with the goals and affects attached to a practice, the latter represents the specific learning dimension which entails accountability. Both concepts point to potential issues of power and tensions between practitioners, and their socio-cultural implications are clearly interesting from an ethnographic standpoint.

In sum, a full "zooming in" on practice requires to (a) follow the patterns of relationships among individuals, and to (b) understand how such patterns are learned and made durable over time.

4.2.2 Zooming out

Zooming out requires to shift the attention from the single practice to the trails of connections which link it to other practices in order to obtain a "wider picture" (Nicolini, 2012). As such, zooming out should provide "a convincing explanation of why the practising is the way it is, and not otherwise, and to document how the local practice connects with non-local effects" (Nicolini, 2012, p. 238).

It follows that, on the one hand, it is necessary to evaluate the practice's effects in different places and times and, conversely, the way in which such places and times manifest through the actual local practice. On the other hand, it is necessary to study the history of the practice by shedding light on the power relations which have led to the current state of affairs (Nicolini, 2012).

These two areas of focus are presented in Table 4.3, and their respective sensitizing questions have been based on Wenger's (1998) framework. Not only is the latter more concerned with time, and change over time, than Schatzki's (2002) philosophical approach. Wenger's (1998) CoPs theory allows also to consider the

Table 4.3

Zooming Out

Focus	Theoretical resources	Sensitizing questions
Following the associations between practices	Wenger (1998)	• What are the connections between the 'here and now' of the practising and the 'then and there' of other practices? • Which other practices affect, enable, constrain, conflict, and interfere with the practice under consideration?
Ways followed to get to the current situation	Wenger (1998)	• What are the interests, projects, hopes, and manoeuvres that led to the current situation? • How could things be otherwise?

possible alternatives (in space and time) to the current situation, and the way in which it is articulated makes it easier – especially through the negotiation of meaning – to follow the potential connections existing among practices.

In sum, zooming out demands to understand (a) the association currently existing between practices, (b) how they are kept together, and (c) the implications of these relationships for the practice at hand (Nicolini, 2012).

The final combination of zooming in and zooming out should not be seen as the simple sum of two separate steps: these movements are actually meant to shed light on each other, and interact, so that the researcher can grasp dynamics and nuances otherwise impossible to detect (Nicolini, 2012).

4.3 Ethnography: principles and methods

Ethnography can be defined as

> the study of people in naturally occurring settings of 'fields' by means of methods which capture their social meanings and ordinary activities, involving the researcher participating directly in the setting, if not also the activities, in order to collect data in a systematic manner but without meaning being imposed on them externally. (Brewer, 2000, p. 10)

The goal of ethnography is therefore to bring the complexity of locally contextualized socio-cultural life to the fore – to describe and explain this complexity, not to underplay or simplify it (Blommaert & Jie, 2010). It is in this sense that understanding a setting from the viewpoint of those who inhabit it is essential for any type of ethnographic research (Coffey, 2018).

Although the term "ethnography" can be associated with different meanings because of its complex history and theoretical roots, some recurring features can be summarized as follows (Coffey, 2018; Hammersley, 2006; Hammersley & Atkinson, 2007; LeCompte & Schensul, 2010):

1. People's actions and accounts, together with their material surroundings, are studied by a researcher who, overtly or covertly, participates in their everyday or working lives for extended periods of time.

2. There's a focus on the in-depth study of a single case or few cases.

3. Data are collected from a range of different sources, with participant observation and conversations/interviews being usually predominant.

4. Data analysis normally entails the interpretation of meanings, functions, consequences of human actions, and institutional practices, and of how these elements are implicated in the local and wider context.

5. A certain tension can emerge between the perspective of the participants (a grounded knowledge of what life *is like* for people living in particular spatial and temporal contexts) and that of the researcher's speculative inquiry into what life *could be like*.

In the very beginning, ethnographies – stemmed from nineteenth-century Western anthropology – aimed to render in-depth descriptions and interpretations of communities or cultures usually located outside the West (Hammersley & Atkinson, 2007). These studies, very immersive, required long periods of direct observation: as shown by the pioneering work of the anthropologist Bronislaw Malinowski (1884-1942) in the Trobriand Islands, fieldwork could last up to three years (Jeffrey & Troman, 2004; LeCompte & Schensul, 2010).

Dominant until the 1960s, this insightful but demanding approach has undergone significant changes since the 1970s, with less and less researchers able to stay in a field site for long intervals and the spread of ethnography into multiple areas of study, from psychology to human geography (Hammersley & Atkinson, 2007; Jeffrey & Troman, 2004).

Today, ethnographers tend to work for shorter amounts of time – an approach made easier by the adoption of *ad hoc* solutions such as narrowing down the scope of fieldwork or relying on new methodologies and tools (Jeffrey & Troman, 2004; LeCompte & Schensul, 2010).

4.3.1 Evolving epistemologies

Most of the key methodological ideas that have shaped ethnography over time can be understood through the alternative philosophical positions of positivism and naturalism (Hammersley & Atkinson, 2007).

Positivism looks at experimental physical science as the methodological model for social research: direct observation is fundamental and, through the logic of induction, universal or statistical laws can be formulated, tested, and either confirmed or falsified. Quantitative methods are thus preferred. Ethnography cannot match such requirements, and when in the mid-twentieth century its scientific rigour was questioned, ethnographers developed a different view, often defined "naturalism" (Hammersley & Atkinson, 2007). Naturalism argues that social phenomena are distinct from physical phenomena, must be qualitatively studied in their "natural" state with an attitude of respect, and cannot be understood through universal laws or causal relationships: it is socio-cultural meanings (intentions, beliefs, values, etc.) to explain human actions (Hammersley & Atkinson, 2007). Yet positivism and naturalism are both "realist" in the sense that they share the same fundamental assumption: social research is able to *reproduce* the social world with a sufficient degree of detachment and objectivity. In this regard, any political or practical

commitment on the part of the researcher represents a source of potential bias (Hammersley, 1992).

Naturalistic realism crumbles as soon as ethnographers are seen as themselves constructing the social world they claim to depict objectively: over the last decades, the influence of philosophical currents such as post-structuralism, critical theory, and post-modernism has led to a wide rejection of realism and to an increasing importance granted to reflexivity (Hammersley & Atkinson, 2007). The latter implies that (a) ethnographers must be self-aware of becoming part of the social world they want to study, and that (b) they bring into this world their values, ideas, interests, sensibilities, and socio-historical positions in a way that makes impossible a complete insulation of the setting under study (Brewer, 2000; Coffey, 1999; Hammersley & Atkinson, 2007).

Acknowledging such aspects does not mean, however, surrendering to relativism. One of the dominant approaches in ethnography today is indeed that of "subtle realism", which abandons reproduction in favour of selective *representation* (Hammersley, 1992; Hammersley & Atkinson, 2007). Subtle realism admits alternative (and equally valid) representations of the same social world, which is nonetheless maintained as an objective reality standing "out there" (Hammersley, 1992). It is in relation to this view that the instances of practice theories can be accommodated when it comes to identifying the methods to use for collecting data.

4.3.2 Participant observation, interviews, field notes

The methods of data collection traditionally associated with ethnography include participant observation, interviews, oral accounts, and collection of documents, artefacts, and other materials (Hammersley & Atkinson, 2007). The goal is to rely on a sufficient degree of confirmatory redundancy to render the complexity of the setting explored and make sure that different sources can complement, corroborate, or amend each other (LeCompte & Schensul, 2010).

Closely associated with fieldwork from its origins, participant observation

involves data gathering by means of participation in the daily life of informants in their natural setting: watching, observing and talking to them in order to discover their interpretations, social meanings and activities. (…) [T]he main instrument of data collection in participant observation is the researcher. (Brewer, 2000, p. 59)

As time goes by, observation "can and should become progressively focused" (Coffey, 2018, p. 47) according to a characteristic "funnel" structure (Hammersley & Atkinson, 2007). According to a traditional classification firstly introduced in the 1950s, and more recently proposed by scholars such as Brewer (2000) and Creswell (2014), participation and observation can be combined to different degrees, from "complete participant" (as a normal group member concealing the research) to "complete observer" (where there's no direct participation at all). Yet this classification, questioned for being too rigid, is not very useful for the purpose of this study because, from a practice standpoint, participation and observation cannot be separated: participating is also observing, and observing is also a form of participation (Ingold, 2014). According to Emerson et al. (1995), a good participant observer should (a) assume and maintain a mind-set "where one constantly steps outside of scenes and events to assess their 'write-able' qualities (p. 43); (b) document key events and incidents by focusing on the experiences and reactions of the people in the setting; (c) be sensitive to members' meanings and concerns by inferring from sayings, doings, words, phrases, and categories rather than by asking directly; (d) be aware of the potential distortions produced, for example, by exogenous categories and meanings.

Although combining participant observation and interviewing is usually very fruitful, interviews are fundamental on their own for their ability to "generate information that it would be very difficult, if not impossible, to obtain otherwise" (Hammersley & Atkinson, 2007, p. 102). As pointed out by Weiss (1994), "[m]uch of the important work in the social sciences (…) has been based on qualitative interview studies" (p. 12). Interviews' ability to provide insights, detailed descriptions, and multiple perspectives has been praised also by Schatzki, who argues that the words

used by people for talking about their activities constitute important "entrance points" to practices (Pilerot et al., 2017).

As a "major vehicle for beginning to capture local knowledge and indigenous understandings" (Emerson et al., 1995, p. 129), field notes are probably the single most important tool available to complement participant observation, interviews, and the occasional collections of brief comments or full oral accounts. Coffey (2018) recommends the regular generation of these notes to provide a detailed description of the setting and its people, descriptions of observed actions, interactions, behaviours and events, details of conversations, and so forth.

4.4 Data collection

Given the key role played by fieldwork in the design of all ethnographic works (Fetterman, 1989), I started to plan data collection in Cloughjordan in late October 2019, right after visiting CEV for a couple of times during the previous summer. It was then that I first met Max, an educator and co-founder of the ecovillage. He put me in contact with CEV's research coordinator, Kenneth, who was very collaborative and willing to support my work since our first meeting. In November 2019 I was formally granted permission to access the community for research purposes, and in early December I met both Kenneth and Max to discuss my fieldwork, due to start in January 2020. That meeting was very useful to obtain a clearer picture of CEV's organisational structure and of its key activities, as well as to arrange my first period of fieldwork and my accommodation in the local eco-hostel.

Back then, my interest as a researcher was focused on information practices and educational activities, and I knew that to narrow down the scope of my work I had to rely on the exploratory nature of ethnography. In terms of methods and tools, I opted for combining direct observation of CEV's life and educational activities with (a) participation in events, meetings, and other initiatives, (b) open-ended, semi-structured interviews, (c) informal conversations or unsolicited oral accounts, and (d) collection of informative materials such as leaflets, posters, programmes, etc.. The

main tools I adopted for my fieldwork since the very beginning were a notebook for field notes, a digital audio recorder, and a digital camera.

As planned in late 2019, data collection would entail a first exploratory phase primarily focused on familiarization and the identification of key informants; a second stage meant to identify a specific research problem; and a final phase aiming to gain an in-depth understanding of this problem through a more selective data collection (Table 4.4).

4.4.1 Fieldwork in times of pandemic

During the initial period of my fieldwork in CEV, the concrete possibility to take part in several activities convinced me I would have enough time to gradually tune into the rhythms and dynamics of its community life.

In preparation for my first period of fieldwork, in January 2020, I read some of the articles and papers published on CEV over the previous years. Starting from the "wider picture" (Nicolini, 2012) was an obvious choice, and on my first day in Cloughjordan I was granted the permission to attend the monthly members' meeting, an essential experience which gave me a first glimpse of the projects and issues with which CEV was then dealing. It was during that first period of fieldwork that I also gained access to the enterprise centre, started the monthly attendance of VERT's[31] meetings, and calibrated my study more effectively by exchanging ideas with Kenneth and Max. The fact of staying in CEV's eco-hostel was certainly helpful in terms of "broad familiarization" (Jeffrey & Troman, 2004), for it gave me the opportunity to meet and talk not only to other visitors, but also to some residents who regularly come across that place.

When I returned to Cloughjordan the following month, I started my exploratory interviews and had the chance to participate in a "Tuesdays' meal": with

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[31] VRE is CEV's Primary Activity Group devoted to education for sustainability.

Table 4.4

Plan for data collection

Phase	Key Activities	Goals
I. **Pre-fieldwork** December 2019 - January 2020	▪ General observation. ▪ Informal conversations. ▪ Collection of documents and informative material.	1. Broad familiarization. 2. Getting a general picture of the setting and of its community. 3. Identifying key informants.
II. **Fieldwork: general exploration** Planned: February-May 2020 Actual: February-December 2020	▪ Observation. ▪ Participation in events, educational activities, and meetings whenever possible. ▪ Open-ended, semi-structured interviews and informal conversations. ▪ Collection of documents and informative material. ▪ Informal data analysis.	1. Identifying key practices, patterns, projects, problems and gaps. 2. Exploring the socio-cultural context. 3. Narrowing down the scope of research and fieldwork.
III. **Fieldwork: focused study** Planned: June-September 2020 Actual: May-September 2021	▪ Observation. ▪ Participation in selected events, educational activities, and meetings ▪ Open-ended, semi-structured interviews and informal conversations. ▪ First phase of formal data analysis.	1. In-depth assessment of the research problem. 2. In-depth description of educational practices and of information sharing between educators.

a free donation, anyone could enjoy a vegan lunch organised by a local entrepreneur at his home to foster commonality and spread a culture based on self-grown, organic food. Opportunities of this kind came abruptly to an end when the Covid-19 pandemic reached Ireland in March 2020.

As soon as the country entered its first national lockdown, things in the ecovillage changed dramatically. Almost all educational activities and events came to a halt, while all in-person meetings and initiatives were either moved online or suspended. I was therefore obliged to reconsider my plans in a new context of great uncertainty. During the spring and early summer of 2020, I could just carry out very

few activities online, such as attending VERT's meetings and arranging some more explorative interviews with an educator and another member of the ecovillage. It was only at the end of July that I was finally able to return to Cloughjordan to attend the permaculture design course[32], a full-immersion experience involving most of CEV's educators. That opportunity turned out to be essential for my research, for I could observe first-hand how education is concretely delivered by different teachers and facilitators in a context where the location itself is a central component of learning. I was back again in Cloughjordan in mid-September, but with two further national lockdowns enforced during the following months, my fieldwork became more and more fragmented. Whilst the second phase of general exploration ended only in December 2020, I was able to resume my work in CEV for the third and last stage (focused study) only at the beginning of May 2021.

From September 2020 to September 2021, I managed to (a) attending either online or (very few) in-person meetings (such as some monthly Members' Meeting, a Farm's Members' Meeting, and most of VERT's monthly meetings until July 2022); (b) spending a considerable amount of time in the enterprise centre, where I had numerous opportunities to chat informally with educators and local residents; (c) spending some spare time with local residents; and (d) arranging and conducting semi-structured, open-ended interviews. With the completion of the interviews in early September 2021, I felt that my data collection had reached an adequate saturation point (Hammersley & Atkinson, 2007) and thus ended my fieldwork.

In total, I was able to stay in the ecovillage for about three months, which is the minimum amount of time suggested by Jeffrey and Troman (2004) for the "selective intermittent" approach to ethnographic fieldwork. Based on a high degree of flexibility in the frequency of site visits (with frequency depending on the goals and areas of focus of the researcher), this approach maintains depth of study as the dominant criterion (Jeffrey & Troman, 2004). Although I was committed to a selective

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[32] The course was held from July 31st to August 9th with about 25 participants.

intermittent fieldwork since the very beginning, the pandemic eventually made it an inescapable choice.

4.4.2 Observation and field notes

I conducted participant observation as part of an exploratory practice where both dimensions of participation and observation can never be seen as mutually exclusive.

Though I always tried to be self-aware of my position as a researcher to minimize bias and favour non-judgemental orientation and reflexivity, I had to face challenges that were related not only to my lack of previous experience and to the ongoing pandemic, but also to my strong interest in socio-cultural dynamics. It was primarily because of this focus that, during the two first stages of my fieldwork, I overlooked the socio-technical aspects of education for sustainability as it was taking place in the ecovillage. This issue certainly delayed my full understanding of some of the most important dynamics behind CEV – and, thus, of some of the challenges facing the development of a Learning Alliance. Only at a later stage did I fully realize in what terms the ecovillage represents a grassroots innovation and, at the same time, a community still transitioning to sustainability. And only at a later stage did I come to understand the degree to which some of the tensions affecting the community are intertwined with different educational approaches and different ways of dealing with information in social practice.

The best of what I gained through observation certainly came from field notes. They included impressions of the people I met, reflexive descriptions about actions, events, places, informal conversations, and other kinds of verbal and non-verbal interactions. All my observations were jot down on a notebook during, or immediately after, the events described and later re-written – often with further comments – on my laptop. I decided to write notes without adopting any pre-determined structure, for their content had to be as open as possible to happenings and details I could not foresee (Emerson et al., 1995).

Field notes proved to be very helpful to order my thoughts, collect my reflections on theoretical and practical aspects of my work, and keep track of the direction in which my research was going. While I used them regularly until the end of the fieldwork's second stage in December 2020, during the last phase I relied on notes less often, and almost exclusively to recollect my impressions of the interviews conducted with the educators.

4.4.3 Open-ended, semi-structured interviews

I opted for conducting semi-structured, open-ended interviews to combine in-depth exploration with a sufficient degree of flexibility. After all, "being alert for responses that suggest new angles to explore" can turn out to be "more important than anything the researcher had in mind before the interview" (Whyte, 1997, p. 25). Notably, some significant issues behind the Learning Alliance project emerged from answers given to broad, rather than specific, questions: in such cases, the fact of not being obliged to follow a rigid agenda throughout the interview, as well as from an interview to another one, was extremely helpful to follow and develop themes and patterns as they emerged over time.

Interviews with educators, members of CEV, and Cloughjordan's residents were organised in two distinct stages reflecting the main phases of my fieldwork. All the interviews were individual, except for two occasions in which I talked to couples: in the first case, I was dealing with educators who are frequent collaborators and preferred to be interviewed at the same time; in the second case, I talked to a married couple of very busy entrepreneurs who were not available separately.

With the only exception of two interviews conducted on Skype in April 2020 during the first lockdown, all the others were carried out face-to-face in various places across the ecovillage according to the protocol presented in Table 4.5. I interviewed the same persons more than once (up to three times) whenever I thought it was necessary to obtain a better understanding of the research problem.

Exploratory phase (February-December 2020). To identify suitable candidates for a first series of exploratory interviews, I decided to sample CEV's population by (a) selecting people I came across by virtue of the role they played in the community; and by (b) adopting a "snowball" approach that, starting from some initial key referents and their advice, gradually led me to identify other relevant members (Weiss, 1994).

Table 4.5

Interview protocol

The interview protocol was based on the following standard procedures:

a) Arranging the interview through a formal request by email.

b) Sending the consent form to the interviewees by email before the meeting.

c) Allowing people to choose the place they prefer for the interview (Hammersley & Atkinson, 2007).

d) Introducing myself by summarizing the purpose of my research and using an ice-breaker question to make the interviewee more comfortable (Creswell, 2014).

e) Employing a digital audio recorder while taking written notes.

f) Keeping the length of every interview between 45 and 90 minutes (Weiss, 1994).

g) Sending back to the interviewee a transcript for approval to avoid potential misrepresentations and misunderstandings.

h) Pilot-testing the interview whenever necessary to modify or drop unclear or misleading questions.

i) Following the general principle that "our best guarantee of the validity of interview material is careful, concrete level, interviewing within the context of a good interviewing partnership" (Weiss, 1994, p. 150).

Given my very limited acquaintance with most people living in CEV, I considered the snowball approach an effective way to reach out those who could help me to pursue two main goals: (a) exploring in more depth the socio-cultural dimension of the ecovillage (especially in terms of its history, organisation, educational activities, and goals); (b) identifying any potential or actual issue at the informational level. While

doing so, I was always aware of the importance of including in the interviews people who, for various reasons, might be considered "on the fringe"; at the same time, I made sure to keep the sample sufficiently diversified for the sake of representativeness (Hammersley & Atkinson, 2007).

All in all, I identified five main areas to be included in the exploratory interviews: (1) personal and socio-cultural background, (2) community-related identity, (3) community resilience, (4) organisational issues, (5) information sharing between ecovillagers. For each area, I then jotted down a list of general questions (see Table 4.6) meant to inform the personalized, and more detailed, interviews (Weiss, 1994).

Table 4.6

Exploratory interviews: general questions

1. How did you develop an interest in environmental issues?
2. How did you become a member (or collaborator) of CEV?
3. How do you currently see yourself as a member (or collaborator) of CEV?
4. Has this way of seeing yourself changed over the years?
5. How has the community recovered from the last crisis? What do you remember of that period?
6. What do you think of the current organisational issues?
7. Have you ever dealt with any significant problem about sharing information with the other members of the community?
8. What is the secret of a resilient community?
9. What are the values embedded in this project that are still meaningful to you?

Throughout this phase, I conducted 17 interviews with 16 people (Table 4.7). In preparation for the single interviews, I gathered some information online, through residents with whom I was already acquainted, or directly from the person who had suggested the interview. Thanks to this piece of information, I was able to adapt the single questions to the interviewee's characteristics (Hammersley & Atkinson, 2007).

Table 4.7

Exploratory interviews: the interviewees and their roles

Name	Description / Role	Duration
Amy	Employee involved in education; CEV's co-founder, member, and resident for about 10 years.	48 min (1st) 45 min (2nd)
Agnes (with Sean)	Independent educator, activist, artist, CEV's collaborator for more than 2 years; Cloughjordan resident for about 2 years.	1 hr
Charles	University teacher, professional, educator, facilitator; CEV's member and resident for more than 10 years.	45 min
Elizabeth (onine)	Professional; former activist; CEV's member and resident for more than 10 years.	45 min
Jasmine	Professional involved in education; CEV's member and resident for almost 10 years.	1 hr 14 min
Jim	CEV farm's employee involved in educational activities.	45 min
Judith	Professional and former activist; CEV's co-founder, member, and resident for more than 10 years.	1 hr 30 min
Kenneth (online)	Retired professor and educator; CEV's member and resident for more than 10 years.	1 hr 25 min
Nadine	Professional with a strong interest in ecological issues; CEV's member and resident for more than 10 years.	1 hr
Peggy	Professional interested in ecological issues; CEV's member and resident for about 10 years.	50 min
Sarah	Entrepreneur; CEV's collaborator and Cloughjordan resident for almost 10 years.	47 min
Sean (with Agnes)	Independent educator; activist; CEV's collaborator for more than 5 years; Cloughjordan resident for about 15 years.	1 hr
Tom & Patricia	Entrepreneurs and educators; CEV's members and residents for more than 10 years.	1 hr 10 min

Name	Description / Role	Duration
Vivian	Employee involved in education; CEV resident (but not a member) for almost 10 years.	53 min

Focused phase (May-September 2021). This set of in-depth interviews came after a period (January-April 2021) during which I had narrowed down my attention on the Learning Alliance project. On the one hand, a more specific goal demanded more targeted, articulated interviews. On the other hand, the snowball approach was no longer needed because, at this point, the focus had to be put exclusively on the educators that could be part of the Alliance.

I therefore opted for selecting the interviewees by creating a "panel of informants" – that is to say, "a collection of people in touch with one another but not as closely linked as those in an organisation" (Weiss, 1994, p. 19). To create the panel, I used the information collected during the previous stage to prepare a list, and I made sure to verify its accuracy with the educators I already knew. The list had to include professional educators while excluding members who just carry out some educational work (from giving tours to describing technical aspects of CEV) whenever required. Thus, only those who could be qualified as educators by virtue of their competences, experience, and educational work regularly carried out in CEV entered the panel.

The interviews were prepared by relying on Nicolini's (2012) theory-method package with three principal goals in mind: (a) reconstructing the main practices of education for sustainability taking place in CEV; (b) evaluating the ability of such practices to perform some commonality; (c) identifying the conditions that might favour the development of a Learning Alliance. The theory-method package proved essential to align the identified areas of practice with the theoretical framework and the basic questions (as shown in Tables 4.2 and 4.3) I later used to prepare the focused interviews (Table 4.8). Since I was aware that data collection had to

compensate for a lack of direct observation caused by the pandemic, I tried to make as many in-depth questions as possible.

Table 4.8

Focused interviews: general questions

1. What is the key purpose of your educational activity?
2. What are your specific areas of competency?
3. If you think of your experience as an educator in CEV, what has helped you the most to develop your knowledge and skills over the years?
4. Can you identify two main feelings you normally tend to associate with your educational activities?
5. Could you describe one of your typical days of work? Do you follow a routine? How has it changed after Covid?
6. Can you identify a set of habitual tasks you carry out to accomplish your daily work?
7. How many projects are you involved in right now - both inside and outside of CEV?
8. Key tools: objects, places, resources.
9. Would you say that your body is relevant for your work? How do you use it?
10. How many educators based in CEV do you interact/collaborate with on a regular basis?
11. What are the main sources of information for your work? How do you use them?
12. For the purposes of your educational work, do you exchange information with the other CEV's educators on a regular basis? How?
13. Is there in CEV a shared general idea of what education for sustainability is, and of how it should be taught and developed?
14. What are, in your views, the strengths and weaknesses of CEV's educational offering? What could be done better?

During this period, I arranged a total of 14 interviews with 11 people (Table 4.9). To prepare for them, I gathered some information online and, most importantly, I used the notes I had written about many of the educators during the 2020 permaculture design course. In some cases, however, I could also rely on the exploratory interviews carried out during the previous stage. Again, questions were slightly adapted to best suit the single interviewees, but to a lesser degree than in the previous phase because of the greater level of detail adopted.

Table 4.9

Focused interviews: the interviewees and their roles

Name	Description / Role	Duration
Agnes	Independent educator; activist; artist; CEV's collaborator for more than 2 years; Cloughjordan resident for about 2 years.	53 min
Charles	University teacher; professional; educator; facilitator; CEV's member and resident for more than 10 years.	52 min
Jordan	Professional; entrepreneur; educator; former activist; CEV's member and resident for more than 10 years.	2 hrs (1st) 2 hrs (2nd)
Kenneth	Retired professor and educator; CEV's member and resident for more than 10 years.	57 min
Max	Educator and facilitator; CEV's co-founder and member, but resident in Cloughjordan for almost 10 years.	1 hr 30 min (1st) 58 min (2nd) 40 min (3rd)
Ned	Professional and educator; CEV's collaborator for about 6 years; Cloughjordan resident.	48 min
Nell	Entrepreneur; professional; educator; CEV's member for almost 20 years, but currently resident in Cloughjordan.	2 hrs
Paul	Entrepreneur and educator; CEV's co-founder and member, but resident in Cloughjordan.	55 min
Sean	Independent educator; activist; CEV's collaborator for more than 5 years; Cloughjordan resident for about 15 years.	52 min
Tom & Patricia	Entrepreneurs and educators; CEV's members and residents for more than 10 years.	1 hr 45 min

The information protocol remained unchanged except for the maximum length of the interviews, which I increased to two hours to dig deeper whenever necessary (Weiss, 1994). Although I relied on software-aided transcription to deal with the longest

interviews, I usually transcribed the audio-files manually to guarantee higher levels of accuracy, fidelity, and interpretation (Gibbs, 2018). Even in the case of the few software-aided transcriptions, however, I always listened to the audio-files to verify their accuracy. Transcription was *verbatim* to produce texts as faithful as possible to the actual words used during the interviews (Gibbs, 2018).

Since "we cannot legitimately claim that simply because we were 'there' we 'know'" (Hammersley, 1992, p. 52), I relied on a wide variety of sources (from informal chats to direct observation, from online resources to the literature on CEV) to double-check my findings and improve their accuracy (Creswell, 2014). Other techniques I used were member checking (asking participants for some feedback on specific issues) and use of negative or discrepant information to make the narrative more solid and credible (Creswell, 2014).

4.5 Data analysis and interpretation

Given the pervasive nature of analysis and its inner complexity, data analysis and interpretation are often described in the literature as an iterative process which "begins from the moment a fieldworker selects a problem to study and ends with the last word in the report or ethnography" (Fetterman, 1989, p. 88). Only by constantly moving back and forth between ideas and data can such a process be brought to a satisfying conclusion (Hammersley & Atkinson, 2007).

My personal experience with this process mostly followed such an iterative path. Each of the three main stages identified in Table 4.4 marked an important shift in my understanding of the ecovillage – and changed inevitably my views and priorities in approaching its educational activities and informational aspects. Despite the fragmentation and uncertainty caused by the pandemic, since the first day of fieldwork I went through a learning process which was key to identifying the Learning Alliance as the project on which focusing my research. Although some aspects of the Alliance had been sparsely discussed during the year preceding its formalization in January 2021, I hadn't paid sufficient attention to them. At that time, I was more concerned with the connection between educational activities, information use, and

organisational structure because my observations, notes, and interviews were pointing in that direction.

By the end of 2020, however, my familiarity with Wenger's (1998) CoPs theory and my data collection had grown enough to make me understand what a project like the Learning Alliance could really imply for the ecovillage. It had the peculiar potential to combine key issues about collaboration in education, informal organisation, information seeking and sharing, socio-cultural learning, and socio-technical innovation. Going back and forth between ideas, intuitions, and data was therefore necessary to grow more and more aware of what was going on around me, and to correct my trajectory as soon as I realized to have made a mistake. Half-way through the second phase of interviews, the data I was collecting were still improving my comprehension not only of the obstacles to the Alliance, but also of the true nature of the ecovillage as a hub of socio-technical innovation. This iterative process continued well after the end of my fieldwork, particularly during the formal process of analysis and interpretation.

Although there is no silver bullet for a successful analysis of ethnographic data (Hammersley & Atkinson, 2007), I followed five main recursive, interactive stages (Creswell, 2014; LeCompte & Schensul, 2010):

(a) organising and preparing data for analysis;

(b) reading through all the data to identify general ideas and patterns;

(c) coding data with the support of the software programme NVivo 12;

(d) generating descriptive themes and patterns;

(e) representing and discussing.

Content analysis of secondary data was employed to integrate the findings from observation and interviews, as well as to provide some historical and background information (LeCompte & Schensul, 2010).

The websites of CEV and its organisations and enterprises, together with some magazine and newspaper articles, were very helpful to obtain historical information on the ecovillage and more details about its educators, projects, events,

and innovations. The official documents to which I was granted access in digital format (such as CEV's purpose statement) were essential to acquire a better sense of how certain goals, values, and issues had been internally addressed and articulated. As for the leaflets and other printed materials I collected mostly in the enterprise centre, I used them to gather background information about initiatives and projects pertaining to CEV. Finally, the work done by previous researchers in the ecovillage was precious to obtain a more nuanced understanding of CEV's development, organisational challenges, and socio-cultural context.

Both primary and secondary data were coded for analysis according to the criteria described in the following section.

4.5.1 Coding

I started the software-aided coding process in August 2021, when I was getting closer to the completion of my data collection. At that time, I had collected (and transcribed) enough data to start this process in a more extensive and systematic way. To organise the data for coding with NVivo I created seven main folders: *Interviews* (only the semi-structured, open-ended ones), *Field notes* (including comments on and partial transcriptions of occasional conversations), *Documents* (official CEV documents), *Literature* (research papers and some master's theses published on CEV over the last fifteen years), *Press* (newspapers and magazine articles on CEV), *Other materials* (including the information gathered on the websites), and *Pictures* (my digital photos of CEV).

Coding is a way of categorizing data which is very helpful not only to create a framework of thematic ideas for analysis, but also to generate a database that makes both searching and retrieval much easier (Gibbs, 2018; Hammersley & Atkinson, 2007). By following the classification proposed by Saldaña (2016), I decided to rely on five types of coding – *descriptive*, *In Vivo*, values, *emotion*, *provisional* (Table 4.10) – and to apply them at three different levels: socio-cultural context, practices of

Table 4.10

The types of codes adopted for this study (Saldaña, 2016)

Code type	Description	Examples from this study
Descriptive	It "summarizes in a word or short phrase – most often a noun – the basic topic of a passage of qualitative data" (p. 102). One of the most frequently used types of coding, it guarantees objectivity but it's not very insightful if used on its own.	Everyday tasks Areas of expertise Skills Tools Information sources
In Vivo	Since it quotes what said by people and brings to the fore their voice, it can be very useful to crystallize and condense meanings. If overused, however, it can limit abstraction and conceptualization during the analytic process.	"I'd like to see people empowered to lead from the periphery" "I see myself as fringe" "It's an amplified life"
Values	It reflects "a participant's values (V), attitudes (A), and beliefs (B), representing his or her perspectives or worldview" (p. 131). While values relates to principles, moral codes, and situational norms, attitudes are ways of thinking and feeling about people, things, ideas; beliefs refer instead to a broader system of opinions, prejudices, morals, and other interpretive perceptions of the social world. Since the same statement could be labelled as attitude, belief, or value according to the researchers' viewpoint and goals, it is very important to keep the focus on the interviewee's standpoint.	Can't stand routine (A) Egalitarianism (V) Importance of systems thinking (B)
Emotion	"Emotion", here, is related to specific feelings and thoughts and is not used as a synonym of "mood". This type labels "the emotions recalled and/or experienced by the participant, or inferred by the researcher about the participant" (p. 125). As such, it is an effective way to focus on social relationships, decision-making, and risk-taking.	Sense of belonging Connectedness Rootedness Frustration Sense of being overwhelmed Confusion

Code type	Description	Examples from this study
Provisional	It establishes a predetermined list of codes developed, for example, on the basis of previous findings and/or pre-existing conceptual frameworks and theories. This type of coding demands caution to avoid "forcing" pre-existing concepts on texts.	Participation Reification Identification Negotiability Imagination

education for sustainability, potential CoPs of educators (Table 4.11). While the socio-cultural dimension is key to any ethnographic study, the other two levels were necessary to address directly the research questions. On the one hand, I needed to code part of my dataset in a way that would make easier to provide a thick description of CEV's education for sustainability from a practice viewpoint. On the other hand, coding had also to support the assessment of the degrees of commonality performed by the existing educational practices and the identification of the conditions that might either favour or hamper the development of the Learning Alliance.

The three levels of coding described in Table 4.11 are also linked to each other in a fundamental way. Education for sustainability as a practice could not be understood without the socio-cultural context in which this practice is rooted. In turn, it wouldn't be possible to evaluate commonality on education for sustainability without a solid grasp of CEV's educational practices.

Although this was not a linear process, coding with such levels in mind was helpful to build on what I had previously done in a more coherent and articulated way. Since I had to depict the socio-cultural context of CEV while providing a thick rendition of its practices of education for sustainability, I considered appropriate to start with descriptive coding.

From an initial set of five broad codes ("socio-cultural context", "education

Table 4.11

The coding process: main features

Levels of coding	Specific objects of study	Focus of analysis	Types of codes adopted (Saldaña, 2016)	Sources coded
Socio-cultural context	CEV Cloughjordan External network	Values Attitudes Beliefs Context/History	▪ Descriptive ▪ Values ▪ In Vivo	Interviews, field notes, papers, articles, official documents, websites, other recordings
Practices of education for sustainability	Educational activities Information-related activities of the educators	Sayings & Doings Objects, materiality, and bodily skills Practical understanding General understandings Legitimation and stabilization Potential tensions Rules	▪ Descriptive ▪ Values ▪ Emotion ▪ In Vivo	Interviews, field notes, papers, articles, official documents, websites, other recordings and memos
Potential CoPs of educators (Learning Alliance)	Imagination Engagement Alignment ─────── Negotiation of meaning Identity formation	Participation Reification Identification Negotiability Mutual engagement Joint enterprise Shared repertoire	▪ Provisional (concept-driven) ▪ In Vivo	Interviews, field notes, papers, other memos

for sustainability", "organisation & governance", and "social sustainability"[33]) I recursively developed a more complex web of codes ordered in a three-level hierarchy, from broader categories to more specific ones (Coffey & Atkinson, 1996),

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[33] I used this term as a synonym of social cohesion and resilience.

and I ended up with 10 major codes, 70 subcodes, and 91 sub-subcodes. Yet it is only two codes to have produced the most dense analytical articulation: "education for sustainability", with 49 subcodes and 35 sub-subcodes, and "social sustainability", with 13 subcodes and 56 sub-subcodes.

Once completed descriptive coding throughout the first two phases, I went back to the socio-cultural context and followed the same process with both values and In Vivo coding. Whilst the latter was the only one I extended to all the three stages for its ability to offer a powerful rendition of people's voice, I applied emotion coding only at the second level because it was specifically relevant to the reconstruction of the teleo-affective structure of the practices of education for sustainability. While writing my findings, I kept my attention focused on the first two levels of coding. It was only in the later phase of my analytical process that I started to apply In Vivo and provisional codes based on Wenger's (1998) CoPs theory.

Throughout the coding process I gradually shifted, as it normally happens (Hammersley & Atkinson, 2007), from more concrete to more abstract categories. The whole process turned out to represent the decisive link between my data on the one hand and my theoretical concepts on the other (Seidel & Kelle, 1995) – in the sense that it gave me the overarching view and insights I needed to organise, present, and discuss my findings.

While the coding schemes of the first two levels informed and shaped my findings, the coding scheme relative to the third level was essential to articulate their analysis and discussion.

4.6 Data management and research ethics

Data management was undertaken since the very beginning of my fieldwork to make retrieval, display, and manipulation as simple as possible (Coffey, 2018).

While, at first, I followed a chronological order for classifying data, as the project progressed I started using more descriptive and precise categories to deal with the increasing complexity of my work and make it suitable for coding and content analysis with NVivo 12. Data storage was conducted in order to prevent

accidental losses and access from unauthorized subjects. While the original files were stored in a hard disk protected by a password, copies of every file were regularly saved both in the cloud (my personal UCD account on Google Drive) and on a separate pen drive.

Data protection and other ethical issues were addressed well before the beginning of data collection. This project was reviewed and approved in November 2019 by the UCD Research Ethics Committee, which granted me an exemption from full review. Later on, during the pandemic, I did not return to Cloughjordan until I passed the UCD Human Research Covid-19 Risk Assessment in July 2020.

All UCD standards for ethical conduct – emphasizing, in particular, the importance of protecting the rights of research participants and of minimizing the risks to which they may be exposed – were applied to the study in terms of design and execution. UCD ethics guidelines also informed the creation of the consent form (shown in Appedix II) that I used to conduct the two sets of semi-structured, open-ended interviews.

Chapter 5

Cloughjordan Ecovillage:
an overview

5.1 Introduction

5.2 A tale of two towns

5.3 Community, education, innovation

5.4 A successful but troubled history

5.5 Strong resilience, diverging identities

5.6 A brief tour of the ecovillage

5.1 Introduction

"For me, at the time there was this strong idea of a sustainable village: and I could not get away from the fact that it seemed like utopia to me". This is how one of the founders of Cloughjordan Ecovillage (CEV) remembers the late 1990s, when a group of brilliant people, who had got to know each other mostly through the Dublin Food Co-op, came together to imagine, and help to build, an alternative, more sustainable, future.

Mostly in their thirties, these pioneers (professionals, entrepreneurs, educators, activists, etc.) came from different experiences and backgrounds, but they all

wanted to show what could be done by developing Ireland's first ecovillage. The project primarily addressed global concerns about climate change and how to address them at a local level. Furthermore, the ecovillage seeks to model economic sustainability and show how this can contribute to social regeneration, especially in rural areas. (Kirby, 2020, p. 290)

The historical distinction between "utopias of escape" and "utopias of reconstruction" (Mumford, 2015) is an interesting one to consider in this regard. The former reflect a vague and logically inconsequent fantasy, which does not deal with things as they are because it is meant to compensate for what is missing in the real world. The latter offers instead a vision of a reconstructed environment, including a physical dimension (as it could be in the vision of a practical inventor) as well as "a new set of habits, a fresh scale of values, a different net of relationships and institutions, and possibly (…) an alteration of the physical and mental characteristics of the people chosen" (Mumford, 2015, p. 19). It is in such terms that utopias can still represent a worthy challenge to our imagination and assumptions (Mumford, 2015). As an utopia of reconstruction, CEV has plenty of lessons to offer, and its twenty-year history may be the very first of them.

Based on documentary evidence, with background information gleaned from my fieldwork, this chapter aims to provide a brief overview of CEV and its history. The initial development, principles, and pillars of the ecovillage project are explored in sections 5.2 and 5.3, while the most significant challenges faced over the years are examined in section 5.4. Section 5.5 addresses the social resilience of the community in relation to the tensions still affecting CEV's ethos. Finally, section 5.6 guides the reader through some of the key places in the ecovillage.

5.2 A tale of two towns

As Mumford (2015) points out, a transition "implies not merely a goal but a starting point: if we are to move the world, as Archimedes threatened to with his lever, we must have some ground to stand on" (p. 199). Such a ground was carefully considered by CEV's founders, who opted for an already existing settlement rather than a "virgin

land" isolated from the mainstream. "We just thought that such a decision made more sense" – told me Max, one of the educators and founders – "with shops, schools, churches, and infrastructures already in place". Back in the early 2000s, the promoters of the ecovillage project were looking for a small rural town within circa 150 km from Dublin, sufficiently well connected to public services, and with good infrastructures (Cunningham, 2014). As a nice settlement in rural Ireland, with a population of just around 500 people and a railway station, Cloughjordan, in County Tipperary, turned out to be the appropriate spot (Figure 5.1).

Featuring a quite unique mix of Christian church communities – Catholic, Anglican, and Methodist – Cloughjordan is the birthplace of the poet and revolutionary leader Thomas MacDonagh (1878-1916), one of the signatories of the 1916 Proclamation of the Republic. In the 1990s – as recently remarked by local councillor Gerard Darcy (Justmultimedia, 2021, 1:05:50) – the town "lost its way in terms of being part of the local rural community". In that period, a very strong but financially inflated economic growth (Ireland became famous as the "Celtic Tiger") triggered a widespread exodus from the country towards urban centres. As many other small Irish towns, Cloughjordan underwent a tangible socio-economic deterioration (Campos, 2013; Justmultimedia, 2021) that CEV's development helped to reverse.

Collins O' Regan (2020) explains that

> The influx of new people has brought individuals with different talents and ideas to the area, and several cooperatively owned businesses have been developed over the years. Businesses such as the café and bookshop in the town display and sell crafts and goods made locally by individuals in both the town and the Ecovillage. (p. 29)

The integration between the ecovillagers and the residents of the old town has been praised by some researchers as "impressive": numerous social events and activities, and the fact that some of the founders of CEV live for various reasons in the old village, have helped the two villages to develop relationships and connections seen as mutually advantageous by most members (Collins O' Regan, 2020; Rantz Mc Donald, 2019). What a resident, Sarah, told me – that there are people in Cloughjordan who would have not stayed without the ecovillage, and that the latter needs the external support

and viewpoint of people from the old town – is a good way of describing the relationship of mutual benefit now existing between the two towns.

On the one hand, CEV counts about 130 people: a middle-class community of entrepreneurs, educators, professionals, employees, artists, and pensioners coming from different countries (such as England, Turkey, Japan, and India). On the other hand, the old town has a population of around 600 residents, mostly middle-class, with signs of increasing gentrification. Over the years, the integration between the two communities has been made easier by the fact that, when the project was conceived, many of its founders were already familiar with country life: to some, the desire to rediscover a stronger sense of community was as relevant as environmental concerns; to others, the awareness of the pros and cons of both ways of living made room to less radical views of sustainability (Collins O' Regan, 2020).

In the late 2000s, the project slowly took shape across a wide area situated on the north-hand side of Main Street, from which people can freely and directly access

Figure 5.1

Cloughjordan, Main Street

the ecovillage. Conceptual proximity to the mainstream was thus translated into physical proximity: a way to remark the nature of the project as a hub of education and socio-technical innovation embedded in the capitalistic system it aims to change.

CEV's "hybrid nature" is evident, for example, in its ability to combine for-profit businesses with social purposes, or private property with a residential area designed according to the principles of permaculture (Table 5.1). In his study, Campos (2013) considers a "paradox" the fact that "CEV's enterprise conveys a vision of an alternative way of living although it runs on, somewhat, mainstream tracks" (p. 41). Rather than a paradox, however, this could be seen as a necessary feature of all experimental transition projects of this kind.

5.3 Community, education, innovation

Founded in 1999 through the establishment of *SPI - Sustainable Projects Irelands Ltd* (a registered educational charity and national NGO part of the Irish Environmental Network), CEV is described in its official Purpose Statement as a response

> to the greatest challenges facing humanity today: the growing impact of human activity on the planet and how its peoples live and work together. The deeper purpose of the Ecovillage is to create a living example of a healthy and harmonious future while treading more lightly on Planet Earth.
> - We are building a resilient, supportive community, based on fairness and mutual respect.
> - We are caring for the land in partnership with the living world.
> - We are learning to live more socially, economically and environmentally sustainable lives.
> - We are sharing the fruits of this exploration through research and education. (SPI, n.d.)

What stands out, in this statement, is that *community* ("building" / "caring") and *education* ("learning" / "sharing") are the two pillars on which the whole project has been founded.

Yet this statement does not make explicit that CEV is also an "ecosystem of innovation", where businesses and technology do play a prominent role "in building up a resilient and environmental-friendly community" (Campos, 2013, p. 29; Papadimitropoulos, 2018). As explained by one of its founders to *The Guardian*, CEV's

success ultimately depends, much more than on its (unlikely) full-scale replication elsewhere, on the mainstream diffusion of at least some of its innovative solutions (Fox, 2018).

Some significant examples of socio-technical innovation taking place in CEV include the following:

a. CEV's farm is based on a *Community Supported Agriculture* (CSA) model of food production and distribution "that aims to improve the quality and quantity of food available locally while reducing the environmental impact of producing this food" (SPI, n.d.). The CSA is owned and operated by its members (around 90, both from the ecovillage and the old town) who, through the creation of a production-consumption network, share not just the rewards of production, but also its risks and responsibilities (Moore et al., 2014). They receive regular deliveries of seasonal vegetables and fruit and offer farmers a decent wage by paying a periodic subscription, but in case of production disasters there might be no produce at all to be shared (Moore et al., 2014; SPI, n.d.).

    The farm relies on "regenerative agriculture"[34] to achieve two main goals: (a) provide its members, visiting groups, and the *Middle Country Café* cooperative on Main Street with up to 85 varieties of vegetables, salads, herbs, and fruits (Kirby, 2020); and (b) contribute "to the sustainability and resilience of the ecovillage by reducing reliance on commercial producers, improving the quality of the food produced, and enhancing skills and practices among the members" (Papadimitropoulos, 2018, p. 56).

    Although the CSA has been involved in educational initiatives since its inception (Moore et al., 2014), organic production always comes first.

b. The integration of smart technology is being carried out at multiple levels, from CEV's homes and buildings to the farm.

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[34] This expression describes "farming practices that, among other benefits, reverse climate change by rebuilding soil organic matter and restoring degraded soil biodiversity – resulting in both carbon drawdown and improving the water cycle" (Cloughjordan Community Farm, n.d.).

c. The Fabrication Laboratory (FabLab) is part of a worldwide network of local manufacturing based on open source technologies (VERT, n.d.). As an excellent example of the DG-ML model[35] (Papadimitropoulos, 2018), the FabLab relies on a set of machines (such as a laser cutter and a 3D printer) to make cheap manufacturing easily replicable across different laboratories located all over the world (see also Donohoe, 2020).

By allowing their members to share access globally to a set of tools to manufacture physical goods locally, FabLabs give individuals and communities the potential to become "more cost-efficient and resilient in relation to more commercial solutions enclosed by intellectual property rights" (Papadimitropoulos, 2018, p. 56).

d. A final example of bottom-up experimentation in CEV is represented by the tactics that some residents have adopted to encourage both self-reflexivity and more sustainable modes of consumption. Designed to "un-silence and thus problematize the conventional cycle of production, consumption and disposition", these tactics mostly rely on visual and physical artefacts sometimes displayed in public spaces to engage a larger number of people (Casey et al., 2017, p. 232).

Such is the case of the stencils (depicting oil rigs and fossil fuel power stations) which have been put around the light switches in the communal area of the eco-hostel *Django* (Figure 5.2): while not constraining users in any possible way, they do encourage reflexivity on (and problematization of) energy consumption in everyday life (Casey et al., 2017).

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[35] The DG-ML (Design Global-Manufacture Local) model is made possible by the combination between modern ICTs (including open-source software and hardware) and desktop manufacturing technologies such as 3D printing: this model "follows the logic that what is not scarce becomes global (i.e., global commons of knowledge, design, software), and what is scarce (i.e., hardware) is local" (Papadimitropoulos, 2018, p. 51).

Figure 5.2

One of the stencils used in the communal area of the eco-hostel

The fact that most of CEV's members "are immersed in a reflexive culture, one which calls on them to consider the very discourses to which they subscribe" (Casey et al., 2017, p. 234) doesn't mean, however, that they are all equally concerned with education, innovation, or sustainability. On the contrary, there are remarkable differences that are both a consequence and a cause of the numerous problems faced by the ecovillage in the past.

5.4 A successful but troubled history

As a pioneering project, CEV's numerous achievements span from the *International Award for Liveable Communities* won in 2013 at the Green Oscars hosted in China to its selection in 2014 as one of Europe's 23 most successful "anticipatory experiences" of the transition to a low-energy society (VERT, n.d.).

Visited every year by many tourists, schools, and universities as a model of sustainability, the ecovillage has built a wide network of connections, partnerships, and

collaborations at multiple scales – locally, nationally, and internationally[36]. It owes its success not only to a rich and articulated educational offer, but also to its enterprises, which have become models of socio-economic innovation and are renowned across Ireland and beyond. The participation of the Irish President Michael D. Higgins at the inauguration of the Cloughjordan Community Amphitheatre in 2017 represented an important official acknowledgement of the commitment and passion that have animated the project since its very inception (see also Table 5.2).

What has been achieved so far is even more remarkable in light of the many challenges that have troubled CEV over the years. Summarizing these issues is useful to acquire a better understanding of the strengths and weaknesses of this project.

5.4.1 The first crisis and the adoption of the VSM

During the very first years (1999-2005), CEV's founders and the new joining members were focused on a huge set of tasks, from finding the right place to designing the ecovillage and obtaining land, financial resources, and planning permissions.

Coherently with the egalitarian philosophy animating ecovillages, SPI (the educational charity operating CEV) was organised along cooperative principles to become "the institutional axis around which revolve all the enterprises and organisations based on Cloughjordan ecovillage" (Papadimitropoulos, 2018, p. 53). In the same direction, the choice of a model of participatory democracy (consensus decision-making[37]) aimed to "enable people to negotiate disagreements and to find collective solutions", as well as to bind "each individual to the decisions made and the ensuing outcomes" (Cunningham, 2014, p. 237). The creation of a board of directors democratically elected by SPI members[38] was nonetheless considered necessary for issues of legal responsibility. Some counterbalances were introduced both to define

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[36] See Chapter 6.

[37] Consensus decision making requires that everyone's views are taken into account. Yet, since it demands that all those involved (or a vast majority of them) must agree to adopt a decision and moving forward, it can significantly slow down decision making (Eckstein, 2016).

[38] All the ecovillagers who own some land are members of SPI.

members' rights and obligations (through the Members Agreement) and to guarantee accountability, discussion, and decision-making (for example, through the monthly members meeting). Finally, the adoption of an Ecological Charter – identifying targets and standards about energy use, solid waste management, water management, land-use, construction materials, etc. (Campos, 2013) – allowed to set some guidelines for designing CEV (Kirby, 2020).

Works on the infrastructure began only in 2005, with the ultimate goal to build around 130 family units, communal and agricultural woodland, and wildlife areas (Espinosa et al., 2011). The shift from the planning phase to the development stage, however, raised much more problems than expected.

At the beginning, the cooperative approach adopted seemed to offer interesting results. All members followed a self-assignment criterion to carry out the tasks that suited better their abilities and skills, and the self-organising working groups stemming from this process made CEV's organisation evolve quite naturally (Espinosa & Walker, 2013).

After a couple of years, however, some problems started to emerge. On the one hand, the board of directors proved to be unable to manage the complexity of this phase: *de facto* led by only two of the founders, the board turned out to be weak and poorly accountable once these two leading members left the project amid tensions within SPI (Espinosa et al., 2011). On the other hand, by late 2006 the organisational structure had become too heavy, complex, and fragmented, with about twenty working groups. The proliferation of meetings, ineffective or tactless communication, and a significant lack of coordination made things more and more difficult to manage (Espinosa & Walker, 2013). Figure 5.3 gives an idea of what was going on at that time.

When the first signs of the financial crash started threatening the viability of the project in summer 2007, the existing issues became even more apparent (Espinosa & Walker, 2013):

> A rapid decline in the price of houses in Ireland combined with unseen problems in developing the site infrastructure ended up causing major financial problems. Many members who had houses to sell were forced to drop out, as the lower house prices lessened their purchasing power, whilst the site prices almost doubled. There were also

severe delays throughout the construction of the site, and further increases in costs. Initially all the sites had been sold (subject to contract) but these new problems meant that several people had to drop out, and the remaining sites had become difficult to sell and thus the income from site sales dropped alarmingly. Many core decisions had been delayed and some members begun to lose faith in the project. (p. 119)

In the early 2000s, high levels of debt were not seen as a big issue. The capital needed for the land and the infrastructures had been raised by SPI mostly through its members' direct contributions[39] and some bank loans (Cunningham, 2014). Raising money through private owners represented a swift way to gather the resources necessary to build the ecovillage: with a strong, fast-growing economy, and an increasing number of people showing interest in the project, SPI was confident that debts could be repaid easily. Hence the preference then granted to private homes over social housing[40].

Figure 5.3

CEV's issues as drawn by some members in 2007 (Espinosa & Walker, 2013)

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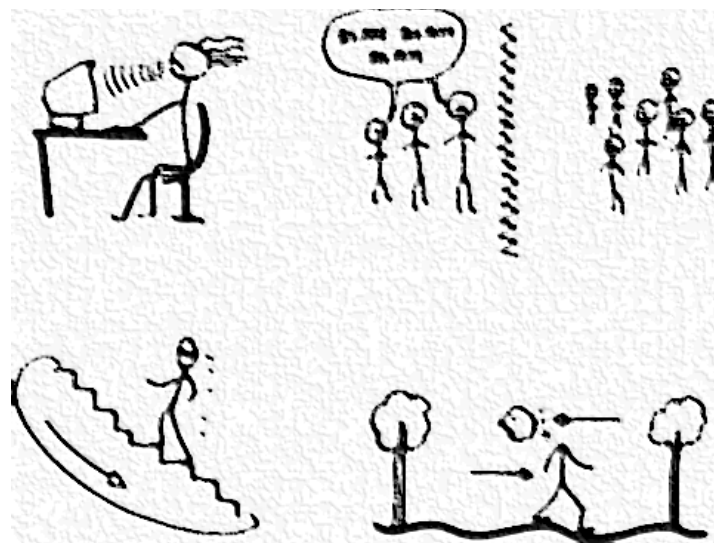
[39] To become a new member of SPI (and, thus, of the ecovillage) it was, and still is, necessary to sign a contract and commit oneself to make a deposit of money as an advance for buying a piece of land. Throughout the whole area covered by CEV, the land which is not privately owned is "collective", in the sense that it belongs to SPI.
[40] More affordable and secure than private renting, social housing is usually provided by non-profit organisations or local councils.

Yet, all these choices eventually put a financial strain on membership (Cunningham, 2014), in the sense that the need to sell as many sites as possible fostered a "rush" that some of the members did not like. Nadine, a local entrepreneur still living in CEV, remembers that

> we were desperate to sell. When the crisis arrived, we lost a huge amount of money. And things were more expensive than people had thought because of all the infrastructures and building costs going up all. The hard, cold reality really hit hard, and we lost a huge number of members. Henceforth, anyone who had money was very welcome.

In 2007, almost half of the members decided to leave the project for both financial and organisational issues (Cunningham & Wearing, 2013). The crash of the following year, centred on the building sector, represented a huge blow for the entire project. The previously dominant public "narrative of progress" about the Irish economy turned out to be "a fabrication based on a kind of 'casino capitalism'" (Crowley & Linehan, 2013, p. 3), and CEV's members had to deal with this harsh reality. More and more people had to drop out, others became unable to move forward with their building plans, half of all deposits were lost, and site sales stopped (Kirby, 2020). When SPI's finances inevitably deteriorated, the project became fully dependent on voluntary labour (Campos, 2013; Kirby, 2020).

The fact that the organisation had failed to tackle rapidly and effectively the looming crisis highlighted the existence of serious flaws that needed to be addressed to keep the project alive through the crisis and its aftermath (Espinosa & Walker, 2013).

It was then that the idea of adopting Stafford Beer's Viable Systems Model (VSM) to re-organise CEV came into play with the concrete involvement, through a three-year action research project of two internationally renowned academics and experts, Angela Espinosa and Jon Walker[41] (Espinosa & Walker, 2013).

CEV's members wanted to maintain a cooperative and democratic organisation, but they also needed a more effective model to address their priorities: completing the roads and infrastructure, and selling more individual building plots. Beer (1926-2002), a

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[41] Dr Walker was well acquainted with the late John Jopling, a retired lawyer and a co-founder of CEV.

pioneer in the application of cybernetics principles to organisations, conceived the VSM as a self-organisational, non-hierarchical model inspired by the human central nervous system. As the study of control and communication in the animal and the machine[42], cybernetics informs self-organisation, which can be defined as "the emergence of stable patterns through autonomous and self-reinforcing dynamics" (Anzola et al., 2017, p. 234). A model of self-organisation like the VSM was seen as suitable to the needs of CEV for two principal reasons: first, it promised to preserve a flat structure where the autonomy of members and working groups could be combined with support and mutual accountability; second, it made sense to adopt an organisational structure coherent with the systems thinking lying behind permaculture (Table 5.1).

To a certain extent, the gradual adoption (2008-11) of the VSM under the guidance of Dr Espinosa and Dr Walker helped CEV to overcome some of its structural and organisational problems (Espinosa & Walker, 2013). Through a limited number of "Primary Activity Groups" clearly centred on the organisation of the key activities of the ecovillage (such as education and land use), and through more regular meetings and forms of reporting, there were tangible "improvements in performance, tasks identification and connectivity": a more efficient communication network, more clarity about organisational roles, and "an atmosphere of greater trust and coherence" (Espinosa & Walker, 2013, pp. 125-126).

By the end of 2013, most infrastructures and buildings (enterprise centre included) had been completed, while new associated businesses (such as the bookstore/coffee shop *Sheelagh na Gig* and the *Middle Country Café*) had been opened in the old town. In general, things seemed to be getting better thanks to a significant simplification of the previous structure and to the promotion of a more efficient, autonomous, and creative working environment.

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[42] This is the seminal definition provided by the father of cybernetics, the American mathematician Norbert Wiener (1894-1964).

5.4.2 The second crisis and its aftermath

In 2015, however, a new crisis ensued. Some of the members call it "the board takeover": SPI's board of directors commissioned a report about CEV's financial viability and became determined to force those members who still had debts to pay them off. In the words of Max, that decision led to a "more vertical, rigid approach", and things started "falling apart" quite quickly, with rising divisions and liquidation becoming once again a concrete possibility.

      The first step adopted to avoid a complete breakdown was the election of a new board. Kenneth, a retired professor and educator who has been involved in CEV's governance for a few years, remembers that

> we did not want to negate everything that the previous board had done – we did take seriously some of the recommendations made in the financial report, but our first concern was that of "stabilizing the ship", of sending out a message that nobody was going to be threatened if they didn't pay debts, etc. We considered the possibilities of developing the project by looking at the potential instead of focusing on the downsides; we tried to emphasize our assets, the potential to sell sites to bring in more members, the relative necessity to engage and resolve issues with the [Tipperary County] Council.

New issues arose when the members of the previous board and their supporters took a very oppositional stand against the new board, whose legitimacy was eventually questioned. In such a climate of contention, the process started in 2016 to widen CEV's membership criteria met increasing hostility. The original idea was to create an "associate membership" which would allow for a bigger number of supporters of the project to become active members without having the same decisional rights of the landowners. The process went on for eighteen months but was eventually shut down at the end of a "very nasty meeting" (as Kenneth puts it) which was meant to adopt a final decision. According to Kenneth, that meeting represented a turning point after which most of the members understood the need to change things for the better.

      While very few residents became (and still are) isolated from the community, the vast majority agreed to coming together to "heal the wounds", and some of them participated in a series of meetings (held for about 15 months) during which two CEV's

members – a facilitator and a psychotherapist – helped people tos voice their issues in a constructive way.

This crisis showed the limits of the VSM, which over the years has fostered ambivalent (and sometimes openly hostile) feelings among the ecovillagers, most of whom have never really grasped how it works because of its undeniable complexity. Although it is today apparent that the VSM has not increased organisational efficiency as it was intended to do (Rantz Mc Donald, 2019), opinions on its role are still very mixed. Some argue it has been useful not only to address relevant organisational and managerial issues, but also to promote autonomy and entrepreneurship; others think that it is unnecessarily complex for what is needed in CEV; some suggest that it might have increased the distance between the "residential" component of the community and its governance; others think that it has not been as effective as expected to promote internal communication.

Today, with some parts of the system no longer operative, there's an ongoing reviewing process of CEV's governance structures. Sociocracy[43] has been brought into discussion as a possible way to improve governance, and some decision-making practices drawn from this model have been introduced in early 2020 (Kirby, 2020). While the broadening of membership is still a matter of contention, it is widely agreed that there are organisational issues that must be addressed as soon as possible (see also Collins O'Regan, 2020). Formal information sharing, for example, operates at two distinct levels (reporting on coordination[44] and regular circulation of emails and newsletters) and suffers from excessive formality and proliferation: a problem which, according to one of the educators, has shifted the attention away from what really

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[43] Founded on the idea that self-organisation can be enabled through *ad hoc* structural solutions, sociocracy relies on principles such as decision making by consent (Eckstein, 2016). Consent prescribes that it is possible to adopt a decision and move forward if those called to decide don't raise major objections (Eckstein, 2016).
[44] Coordination is meant to (a) produce a periodic report of all groups' activities for members, and to (b) regularly gather the groups' coordinators to discuss conflicts and synergies. This function aims to ensure transparency and accountability (Kirby, 2020).

matters – that is, "achieving mutually beneficial and effective ways of doing things in everyday practices".

5.5 Strong resilience, diverging identities

An indicator of social sustainability, community resilience can be described as the "ability to mobilise successfully and to respond and thrive in an environment characterised by uncertainty, change, stress, and unpredictability" (Collins O'Regan, 2020, p. 11). Having survived two major crises and multiple challenges over two decades, CEV has proved so far to have such a quality.

As pointed out by Kenneth,

> One of the main lessons I may draw from my personal experience here is that we have managed to put down roots of resilience that are very, very strong. Healing still needs to go further, but we are in a much stronger position now than we were only three years ago. Since it is said that only 10% of intentional communities survive over the long run, ours can be considered a significant achievement.

As a matter of fact, "community" is a strong and widely shared value often emerged during my conversations with members and collaborators of CEV. To Peggy, a nurse who joined the project mostly because of her ecological values, community has turned out to represent "a bonus": "My low expectations were certainly rewarded. There's a core of people here who are really friendly to each other – you can feel it. And many are very willing to help". Jasmine, a member actively involved in the farm for years, claims that living in CEV has taught her "to be more tolerant and respectful of views different from mine". And Sarah, an entrepreneur who lives in the old town and collaborates regularly with CEV, points out the importance of sharing and the centrality of people:

> I've really enjoyed Jordan's recent initiative: from time to time, he has lighted some night fires where people could meet each other and talk. These are the tiny things which enable human interaction: giving and taking, to be open… all of this is fundamental for the resilience of a community. The first thing for me is people: the way they think and are.

Connecting and sharing in a real-life community can represent a highly rewarding experience. Amy, a co-founder, member, and resident involved in CEV's education,

defines herself "an introvert". When she moved to the ecovillage about a decade ago she went through difficult times, but after a while things changed for the better:

> The first year I was here I thought I had done a big mistake. Then something happened – small things that made me feel there was something very true and valuable here. There was a period when there were quite regular community meals, and I was not very interested (I never played host, for instance). Yet, when I decided to take part in some of such meetings and got out of my comfort zone I enjoyed it – it felt good, a very rich experience. Then I found myself doing other things, like helping neighbours, and I felt nourished. It is only over time that I have come to understand what is beautiful and valuable in this place… but you must "scratch the surface". It has been a satisfying journey that has changed me.

Night fires, community meals, jam sessions, and festivals are just some examples of the many initiatives and events that, over the years, have helped to develop closer bonds through the constant promotion of a culture of sharing and co-ownership (see also Collins O'Regan, 2020).

5.5.1 The response to the pandemic

Even the Covid-19 pandemic seems to have produced some positive effects at a communal level.

A few weeks after the start of the first lockdown in March 2020, Kenneth was already observing "a huge support within the community, with many initiatives going on". A viewpoint backed by Max ("the pandemic has reinforced the feeling of rootedness, and the appreciation of being in the right place") as well as by Sean, a young educator for whom CEV "has been a great place to be" during the lockdowns.

Muireann Collins O'Regan, a master's student who was living and researching in the ecovillage when the pandemic started, had the opportunity to observe first-hand how the community dealt with the emergency and the first lockdown. While at the beginning the difficulty to adapt was inevitable, with widespread "feelings of trepidation and disconnection" (Collins O'Regan, 2020, p. 45), over time different forms of effective adaptation started to emerge:

> Individuals were very creative in finding ways to be able to socialise with one another and connect through new modes and mediums. (…) These actions and responses have evidenced the community's resilience as a social group, showing their ability to handle,

respond and deal with change. The effect of the pandemic even helped to forge new connections with various individuals across the village during some of the new social activities that were taking place (…). This situation demonstrated how the community operates as a functioning group and uses the skills they have learnt, such as 'active listening' and 'non-violent communication', in other spheres of their life, applying them in other events where they are searching for a solution to a wider concern or problem as a group. (pp. 20, 44, 51)

All in all, the response to the Covid-19 emergency seems to confirm the findings of previous studies on CEV's social resilience (Campos, 2013; Papadimitropoulos, 2018; Rantz Mc Donald, 2019), and it also supports the argument that what happens informally at a social level should never be underestimated. As observed by Nadine, despite some undeniable tensions still holding across the community there's "a huge interpersonal activity, and caring, and looking out" which help to keep people together during the most challenging times.

5.5.2 Persistent divisions and "amplified lives"

Today, the long term effects of a crash that jeopardized the complex development process started back in 2005 (Table 5.2) are mostly evident at two levels.

As a physical place, CEV does not look much like it had been originally envisaged in the early 2000s. There are still 28 unbuilt sites, while other 47 remain for sale. The lack of financial resources has indeed generated a sort of "loop problem", for the inability to complete some infrastructural works (such as the street lighting) has not allowed to build a single new house in many years because of the lack of the necessary planning permissions. This, in turn, has halted the community's expansion and the acquisition of new financial resources. Common areas (such as the never-born Market Square) have been hit even harder, to the point that the enterprise centre ("WeCreate") still represents the only formal indoor collective space where the members of the community can meet, talk, and exchange ideas.

In terms of social cohesion and common purpose, some ecovillagers see the financial crash as a turning point after which things have never been the same again. Nadine remembers that

> When we joined the ecovillage, the situation was very different. Back then, I thought we would have a meaningful impact on the wider landscape of Ireland. I thought we would be an inspiration and that there would be more like us. Since the existing model of development has no future, this seemed the best shot we had to be involved in something that would literally change the landscape. There was optimism around that. If we could not be a beacon, we could be at least a lifeboat – and maybe we can still be something like that.

Strong-minded, intelligent, visionary people participated in the ecovillage project from the very start. "Everyone had their own ecovillage in their head", says Nadine, "and there wasn't necessarily a way to find a common one". A that time, however, deep commitment, ambition, and enthusiasm effectively counterbalanced tensions and potential divisions. It was mostly after the financial crash that the urgency of finding new members altered the nature of the original community. Today,

> Founding members tend to have strong left-wing ideals and others refer to them as "radicals" (Resident no. 6), while people who joined later on have more mixed political views, including some very conservative. (…) Those involved at early stages are more content with life and space in CEV. Whereas newer members have more rapidly grown discontent. (Rantz McDonald, 2019, pp. 31, 47)

In part, such a discontent is arguably relatable to the increasing gulf between those who look at CEV as a hub of socio-technical innovation and education for sustainability, and those who consider it mostly as a residential area embedding ecological values.

The general trajectory followed by CEV's identity over the last twenty years has been well recapped by Max:

> At the beginning, when we had just identified the land, it was much more about achieving a common purpose. Then, right up to the financial collapse, there was a lot of work to do to make things happen in terms of feasibility (surveys, permission, etc.). People who stepped in after the crash were not necessarily interested in the educational purpose of CEV. The shared purpose existing before 2008 got weaker, and we became essentially a "community of communities". While this can be healthy in the long run, in the short term it can cause divisions and conflicts. Nonetheless, things seem to be improving in more recent times.

Max's observations are useful to understand the "amplified lives" and the "intensity" of community life that were mentioned during the online celebration of the first twenty years of CEV in November 2020 (Justmultimedia, 2021):

> Living in CEV is intense, and that has both its positives and its negatives… You have a lot of contacts with your neighbours, and sometimes it can feel like living in an "extended

meeting". There's a sense of having to live both with your personal demons and with the mistakes we have collectively made over twenty years. (12:16)

Everything is more… More emotions, more vigorous conversations, more sadness, more relief: it's an "amplified life", and not necessarily in a good way. (16:05)

The fact that the full ethos of the project does not seem to have been conveyed to most of those who have joined CEV after 2009 (Rantz Mc Donald, 2019) is probably one of the key factors that could still jeopardize its growth from an educational and innovative standpoint. Without a shared ethos, which anthropology defines as a "set of strongly held moralistic positions about how life *should* be" (Boehm, 1999, p. 68), mutual trust weakens, and cohesion becomes more challenging (Litfin, 2013). Back in 2013, Pedro Campos had already suggested the idea that "the problem [of cohesion] may not remain so much in the diversity of minds as it may in the gravitational centre of CEV's ethos" (p. 43). The conflicts emerged in 2015 back the soundness of his argument.

With a new development phase launched in 2020, today one of CEV's main goals is to become "a leading campus for education in all aspects of sustainability" (Kirby, 2020, p. 300).

Table 5.1

The centrality of permaculture to CEV's culture

Developed by Australian educators Bill Mollison and David Holmgren in the 1970-80s, **permaculture** (which stands for "permanent agriculture") is a design methodology whose tenets, rooted in systems thinking, have been used in CEV to "integrate green buildings, woodlands, organic agriculture, renewable energy and edible landscapes within a living community" (VERT, n.d.).

According to **systems thinking**, "the essential properties of an organism, or living system, are properties of the whole, which none of the parts have. They arise from the interactions and relationships between the parts" (Capra, 1997, p. 29).

If the properties of the parts are not intrinsic properties, then they can be understood only in relation to the whole – which is to say that they *always need* to be contextualized. "Thus systems thinking is 'contextual' thinking; and since explaining things in terms of their context means explaining them in terms of their environment, we can also say that all systems thinking is environmental thinking" (Capra, 1997, p. 37). Ecology is indeed part of systems thinking.

Earth care, *people care*, and *fair share* are the three mottos behind the main permaculture principles:

1. *Observe and interact* - by engaging with nature and observe it, new design solutions can be developed.
2. *Catch and store energy* - when abundant, resources must be set aside to be used in times of need.
3. *Obtain a yield* - rewards are essential to sustain people and their work.
4. *Apply self-regulation and accept feedback* - to make sure that self-regulating systems can continue to work properly, positive feedback (an inappropriate activity reinforcing a destabilizing tendency) must be timely counter-balanced by negative feedback (the inhibition of that activity).
5. *Use and value renewable resources and services* - consumptive practices and dependence on non-renewable resources must be reduced by relying on nature's abundance.
6. *Produce no waste* - all the resources available must be valued and used so that nothing is wasted.
7. *Design from patterns to details* - it is only by stepping back from the single details that the "big picture" becomes visible.
8. *Integrate rather than segregate* - integration should be always preferred over segregation to promote the development of fruitful relationships.
9. *Use small and slow solutions* - small and "slow" systems, allowing to use local resources more efficiently and effectively, are more sustainable.
10. *Use and value diversity* - diversity makes a system more resilient to environmental variations and threats.
11. *Use edges and value the marginal* - the most popular approach is not necessarily the best one.
12. *Creatively use and respond to change* - rather than being simply "seen" when it comes, inevitable change must be anticipated through careful observation to intervene at the right time.

Thanks to the training of more than thirty CEV's residents, over the years these principles have been applied at multiple scales, from the single home gardens and buildings to the design and zoning of the entire estate.

Permaculture's ethical and social implications have influenced not only the organisational choices of the project (such as the adoption of the Viable System Model), but also the way in which many ecovillagers have learnt to live and work together.

5.6 A brief tour of the ecovillage

Coming from the train station and moving along Main Street, in Cloughjordan, the Ecovillage (CEV) becomes visible, on the right-hand side, as soon as one reaches the Village Green (the central square of the town) at the corner of Main Street and Church Road (see map in Appendix I).

The pedestrian entrance to CEV is right there, and gives the visitor a glimpse of the 67 acres on which 55 houses, a hostel, and a business centre have been built over the last decade. Part of the land is also devoted to woods (20,000 trees have been planted since 2011) and farming (Cloughjordan Community Farm occupies a surface of about 12 acres), but it is the residential area to feature two of the three key characteristics which support, together with the farm's peculiar food system, CEV's status as an ecovillage: the ecological building standards and the district heating system (Kirby, 2020).

The buildings in the urban quarter (ten of which installed photovoltaic panels back in 2017) are characterized by some of the highest energy ratings (BER) in Ireland (Papadimitropoulos, 2018); in part self-built and in part contract-built, these houses follow a wide variety of architectural styles (each of them is quite unique) and rely on sustainable housing construction designs and materials.

As for the heating system – on which the whole village depends also for the supply of hot water – it is fuelled by local waste wood and represents the first of its kind to have been installed in a private housing development in Ireland: in comparison with conventional heating methods, this system is estimated to save some 113.5 tonnes of carbon emissions annually (Kirby, 2020).

The entrance on Main Street (Figure 5.4), leading directly to the eco-hostel *Django* (on the left) and to Market Square (straight forward), is pedestrian to reflect CEV's effort to discourage car use: vehicles can access the ecovillage only by using the north-east entrance on Step Road (where a car park has been created), while streets, narrower than normal to reduce speed, are usually separated from pedestrian paths.

Figure 5.4

The pedestrian entrance to the ecovillage from Main Street

The "unfinished" status of CEV is apparent as soon as the visitor walks through Market Square, where some of the unsold sites – undistinguishable from communal areas – are visible. Contrarily to what is the norm in Irish housing estates, walls and fences are rare to emphasize the importance of communal living. Bins and benches are sparse as well, while street lights are still completely absent. A certain lack of maintenance of communal areas, explained by Rantz Mc Donald (2019) as the "most striking effect of resident disengagement and the participatory burn-out" (p. 38), is also due to the insufficient resources available to maintain such spaces on a regular basis.

5.6.1 The enterprise centre

Going north from Market Square (which often hosts sport matches and other social activities), it is possible to cross a wide green area partially devoted to pasture and reach, in a few minutes, the enterprise centre *WeCreate* (Figure 5.5). Given the absence of a welcome hub, it is this centre – built with local, national, and EU funding – to have always played, since 2013, the multiple role of educational/meeting/co-working space, event hub, and "town hall". Visitors often knock at its door to get information about

CEV, and it is here that both the FabLab and *Greenstar*[45] – a national NGO and Civil Society Organisation focused on education, communication, and citizen engagement about sustainability – are based.

While the vast room hosting the FabLab is on the ground floor, the workspaces used by Greenstar and other organisations can be found on the first floor, featuring two offices, an open space with desks and computers, and a library[46]. The latter is interesting for it reflects, in its rich composition, the huge variety of topics relatable to sustainability: social and environmental justice, community building, biology, capitalism, communism, anarchism, globalisation, climate change, architecture, gardening, permaculture, sociotechnical innovation. In general, it is the whole centre to mirror the "soul" of CEV as a story-telling and ecological laboratory (Litfin, 2013) of innovation.

In the backyard of WeCreate there's a field covered with solar panels installed more than ten years ago, when it had been planned to use solar heat as the main

Figure 5.5

The enterprise centre

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[45] See Chapter 6.
[46] 90% of it is owned by Greenstar.

source of energy during the summer. Yet such panels have never functioned because the contractor overseeing the work went bust in the aftermath of the financial crash. The subsequent choice to rely exclusively on the district heating system has led to higher charges for residents, because that system was originally designed to serve many more customers (Papadimitropoulos, 2018).

5.6.2 From the allotments to the eco-hostel

On the other side of the road, just opposite the solar panels, there's the entrance to the allotments area (Figure 5.6), where pieces of land are available on request for householders who decide to grow their own food.

Clustered together to the east of the site to facilitate the sharing of tools and skills, these plots[47] include the six ones used by Jordan in his *Food for Life* (FFL) project to test different approaches and techniques to growing vegetables[48].

Figure 5.6

The allotments

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[47] The standard measure of these plots is 100 m².
[48] See Chapter 6.

Moving back towards the south side of WeCreate, right beyond the construction hosting the district heating system it is possible to follow a narrow, unpaved road which connects the enterprise centre to the Cloughjordan Community Amphitheatre on the west (Figure 5.7), and to the Community Farm on the north. While the former is a 300-seat multi-purpose facility hosting a wide range of meetings and cultural events, the latter, situated on 12 acres (half under cultivation, half under green manures or in pasture), is the hub of CEV's food system[49] (Kirby, 2020). The farm includes four polytunnels, erected to extend the growing season, a composting area, and a timber building for farm workers. Since regenerative agriculture is quite labour-intensive without relying much on mechanical equipment, two full-time Irish farmers are regularly supported by under-30, full-time volunteers.

The former are hired as employees by SPI, the latter come from all over the world through the *Erasmus+* initiative and the *European Solidarity Corps* (ESC), a EU

Figure 5.7

The amphitheatre

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[49] See section 5.3.

programme for short- to long-term (up to a year) cross-border volunteering (Kirby, 2020).

Walking south from the main entrance of the farm, one returns to the urban quarter by following a nice trail which has been created along the border with the woodland area. It is there, in the western section of the residential zone, that *Raw Loaf*, Tom and Patricia's bakery and bread school, was established a decade ago. Together with FFL and the FabLab, this is another important example of socio-technical and socio-economic innovation – focusing, in this case, on the sustainable production and distribution of organic bread.

Delivered to the local area three times a week, the quality of this bread benefits not just from the use of raw ingredients and the absence of additives and preservatives, but also from the high efficiency of the masonry oven (Figure 5.8) designed for this bakery by Alan Scott, a world-renowned pioneer and designer. This technical choice has made the whole production system perfectly sized for (and not meant to grow beyond) the needs of the local community: the oven's output cannot be much superior to 350-400 loaves per week.

Figure 5.8

The high-efficiency masonry oven of the bakery and baking school

On the way back to Market Square, it might be easy to overlook a silver fridge standing under a tree on the right-hand side of the road (Figure 5.9). As another component of the FFL project, this fridge is regularly supplied with organic vegetables coming from the allotments (hence the nickname "veg-fridge"). Anybody who knows about it can take whatever he or she likes and leave some money on the top shelf: there are no fixed prices, so it is the buyer to decide how much to pay. Although the possibility of "free riders" cannot be excluded, the fact that only friends (or friends of friends) know about it makes the risk acceptable. Beside its more evident, straightforward function – providing local people with high-quality organic food – the veg-fridge has at least two other purposes. First, it aims to encourage a sense of solidarity, for those who are dealing with financial issues can still access high-quality food and pay as much or little as they can afford. Second, it is meant to educate people (and kids in particular) to develop a deeper and trustful connection with food.

Once reached Market Square, the eco-hostel is clearly visible on the south side: considering the lack of accommodation in the old town, the support this structure has given local tourism and educational activities over the last ten years could hardly be

Figure 5.9

Unexpected educational tools: the "veg-fridge"

overstated. Django is much more than a simple hostel: it is a place encouraging self-reflexivity and education about sustainability, providing information to visitors about CEV's initiatives, hosting cultural events, and regularly collaborating with important educational initiatives such as the permaculture design course.

5.6.3 Educational activities

Walking around CEV on an ordinary weekday, it is easy to meet groups of visitors (such as students, tourists, and specialist professional groups from Ireland and abroad) participating in a guided tour led by a volunteer. Not all guides are educators, but most of the educators give tours for free more or less regularly.

While the tours offered on Saturdays and Sundays are relatively short (less than an hour) and tailored for a general audience, longer visits organised during the week – and mostly addressed to third-level students – are richer in terms of inputs and activities and usually focused on specific aspects of CEV. Both tours and longer visits are essentially based on what is defined in CEV "walking the talk"[50]. This practice *per se* is traditional in the sense that it shows participants the most interesting parts of the village and explain to them what has been done, and the reasons and processes behind it. Yet the educational advantage of a place-based experience, where people can see and touch first-hand what sustainability means and implies, is significant in comparison with looking at the same things in a book or in a slide presentation.

Tours and visits are well complemented by workshops and festivals organised each year to address specific issues such as permaculture, co-housing, community energy, and organic farming[51]. The multi-sensory experience is central to events like the *Apple Festival*, where people walk, look at different types of apples and taste them. As pointed out by Charles, one of the educators, "you're bringing food into your body and you're becoming it".

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[50] See Chapters 6-7.
[51] Put on hold during the Covid-19 pandemic, these events are being gradually reintroduced in CEV's educational programmes.

This dimension is also present in *Elements of Change*, a festival where food (bread, in particular), music, and active participation play a very important role. Featuring presentations, practical demonstrations, group discussions, music, and poetry, Elements of Change takes place across the amphitheatre, the enterprise centre, and the whole ecovillage to foster reflection on sustainability and emphasize the value of community building for change.

CEV hosts regularly courses on various topics – the permaculture design course and the bread-baking classes being among the most popular. The former, run by Greenstar since 2010, is quite successful across Ireland and offers a full-immersion experience of ten days into the exploration and implementation of the design principles of permaculture. Through indoor face-to-face lectures, outdoor lessons, and group activities, participants are enrolled in an intensive learning practice where they are constantly challenged to think and act in more systemic ways.

As a living example of "permaculture in action", CEV offers infinite opportunities to observe, reflect, imitate, and replicate techniques and solutions for sustainability: the involvement in this course of all the key educators based in the ecovillage brings to the programme a good variety of approaches and standpoints. Most activities do often require practical demonstrations, the use of specific tools (from scythes to shovels), and the ability to work on the ground with one's bare hands.

In the case of the multi award-winning bread-baking courses offered by Raw Loaf, participants are required to bake their own bread loafs by going personally through the entire process and its inevitable challenges. Baking bread is always contextualized in relation to CEV, its goals, and the broader sustainability issues it addresses. The context is described in very practical terms: for example, why there are trees where there should be fences, the features of the District Heating System, the culture of sharing things, the stories and permaculture's principles behind such choices, and so forth. There's also a more "sensorial" way in which participants are offered a tasting of the ecovillage's culture: the organic vegetables included in the course lunch come from FFL.

5.6.4 A (still) cutting-edge destination for learning

After more than ten years since its construction, it is fair to wonder whether the ecovillage as a whole can still be considered a cutting-edge site of socio-technical innovation. According to Nell, one of the educators, the answer is positive in many respects.

As citizen-led rather than developer-led, the project is still very novel. Its building standards remain advanced, for instance, in the use of natural materials like hemp and lime. The drainage system is quite at the forefront in terms of sustainability for a residential development, and the same can be said of the district heating system. One could also mention the models and systems adopted for organisational and decision-making processes: the issues faced by the community in this regard should not overshadow the fact that such solutions have always been cutting-edge[52], and that some of the problems described in the previous chapter are also the consequence of risky, pioneering choices. Finally, there are many features of the estate design which are still considerably advanced.

Whilst not all of these aspects were planned before the work of construction began, the idea of making CEV a model for education and experimentation has been very clear since the beginning. As Max has pointed out, "CEV has always represented a destination for learning". Learning is indeed everywhere in the ecovillage, and it is often occasional. It can include the direct observation of what one is doing, a practical demonstration, an insightful suggestion, or some technical advice.

According to Jim, a farm's employee who has been involved in educational activities,

> the best learning you can have comes probably from people living here in the ecovillage, who have plenty of knowledge about the work done on the infrastructures in the past. You just need to come in – they're just there – and ask: "What do you think about this?", or "How would you do this?". I wouldn't call it formal education. But it's like there's education just bubbling around.

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[52] For example, CEV is likely to be the first and only ecovillage in the world to have ever adopted the VSM.

The next chapter offers an in-depth description of the educational practices currently taking place in the ecovillage with a two-fold purpose: providing a better understanding of the similarities and differences existing between such practices (and between the educators), and pointing out the tensions, issues, and challenges that are specifically relevant to the Learning Alliance project.

Table 5.2

Cloughjordan Ecovillage: a chronology (1999-2021)

Phase I (1999-2005) - Foundation and initial development

1999 The founding members of CEV create *Sustainable Projects Ireland Ltd* (SPI).

2000 CEV project is officially presented at Central Hotel, Dublin.

2000-02 Search for suitable land; prospectus launched to attract new members.

2002 Identification of Cloughjordan, in County Tipperary, as a possible location.

2003 (May) First in a series of town hall meetings with the residents of Cloughjordan, now officially chosen as the ecovillage's location.

2002-04 Land negotiations. Tipperary North County Council re-zones land for sustainable development. Opening of SPI office on Main Street, Cloughjordan.

2004 Contract on land signed; application for planning submitted.

2005 Purchase of a 67-acre site on the north side of Cloughjordan.

2005 (August) Planning permission granted; land sale completed.

Phase II (2006-13) - Material development

2006 Securing loans for infrastructure works.

2007 Infrastructure works start, but the signs of a global financial crisis become more and more evident. As almost half the members decide to leave the project, experts are called in to inform and facilitate the transition to a more effective model of organisation and governance: Stafford Beer's *Viable Systems Model* (VSM).

2008 The basic infrastructures (water, electricity, central district heating, main roads and paths, etc.) are completed.

2008 (August) The *Cloughjordan Community Farm* is set up as a Community Supported Agriculture (CSA) farm to develop a locally-resilient food system.

2009 Launch of the house-build phase.

2009 (Christmas) First residents move in.

2011 (Spring) 17,000 trees are planted in the community woodland.

2011 (May) The eco-hostel *Django* opens to the public.

2011 (June) Construction begins on the Enterprise Centre *WeCreate*.

2013 55 houses and the Enterprise Centre are completed.

2013 (December) CEV wins the *International Award for Liveable Communities* at the Green Oscars hosted in China.

Phase III (2014-21) - Consolidation

2014 The organic bakery and baking school *Raw Loaf* starts its activity.

2014 CEV is selected by the *Milesecure* academic project for the European Commission as one of Europe's 23 most successful 'anticipatory experiences' of the transition to a low-carbon society.

2016 Launch of the *Food For Life* project's YouTube channel, dedicated to the issues of growing organic vegetables at a small scale.

2017 (Earth Day) Irish President Michael D. Higgins opens the Cloughjordan Community Amphitheatre, a 250-seat multi-purpose space designed to stage cultural and artistic events.

2019 (June) Launch of the first edition of *Elements of Change*, a festival bringing together most of the educators of CEV.

2020 Launch of a new development phase (2021-25) aiming to transform CEV into a leading campus for education about sustainability.

2020 (November) Online event to celebrate CEV's twenty-year anniversary; after a period of organisational and financial troubles, a new five-year strategic development plan is adopted.

2021 (October) A brand-new version of CEV's website goes online.

Sources: Campos (2013), Cunningham (2014), Irish Times (2006), Kirby (2020), www.thevillage.ie

Chapter 6

Practices of education
for sustainability

6.1 Introduction

The overview of CEV presented in the previous chapter gives a rough idea of what "place-based education" looks like. CEV's educational experience is grounded in a physical place where virtually every single corner can teach different things on sustainability. Socio-economic and socio-technical innovation are essentially everywhere, and what is material and visible is often just the surface of underlying ideas and solutions.

From a practice-based view, the ecovillage is made of the everyday work of all members, residents[53], and collaborators who, in different capacities, do their best to bring the project forward. Education for sustainability is a key component of this work, and the doings, sayings, meanings, and affects at its core can be mapped according to the theoretical framework (Schatzki, 2002; Wenger, 1998) introduced in Chapter 2.

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[53] Some members do not live in CEV, while some CEV residents are not members of SPI.

Starting from the groups and enterprises through which education is conceived, organised, and delivered (section 6.2), this chapter shifts its attention to the single educators and their key tasks (section 6.3): their background, the ways in which they seek and share information, the central meanings they attach to their practices, and the places where the latter are carried out are all essential in relation to the Learning Alliance project. Rules and the difficult balance between control and autonomy are then discussed in section 6.4, while the complex relationship between goals and affectivity, and the way in which it is mediated by artefacts and places, is at the core of section 6.5.

6.2 Groups, organisations, and enterprises

The higher level at which education for sustainability in CEV can be practically understood is that of the groups, organisations, and enterprises active in the community: VRE, Greenstar, Food for Life, and Raw Loaf.

At this level, it is very important to consider also the external connections that link the ecovillage locally, nationally, and globally to a much wider "ecosystem" of institutions and partners, most of which have been (and still are) important to support its growth.

6.2.1 VRE

As the Primary Activity Group devoted to education, *VRE* (*Village Research & Education*) is the official branch through which the ecovillage pursues its educational goals. As stated in the official document that describes VRE's mission,

> Our remit is to establish Cloughjordan Ecovillage as a leading national and international centre for education for sustainability, resilience, community living, rural regeneration and for re-thinking and modelling the transition to the low-carbon transition as an essential part of society for the future. VRE intends that Cloughjordan become an internationally known name for cutting-edge educational activities that prepare individuals and communities with the skills, knowledge, resources and support to manage epochal social change in a creative, equitable and sustainable way. (VERT, 2021)

The generation and dissemination of knowledge and first-hand experience are promoted not only through tours and presentations, but also by (a) supporting external

research activities on CEV; (b) organising events and discussions about highly relevant topics like climate change and the role of ecovillages in the transition to sustainability[54]; (c) favouring the development and coordination of online and physical learning spaces in Cloughjordan; (d) managing the content and regular update of CEV's website (www.thevillage.ie); and (e) sharing the lessons learned with the wider community (VERT, 2021).

VRE's primary audience is represented by universities and schools, that can benefit from curriculum- and activity- related programmes, including pre- and post-visit support. Ongoing partnerships include Dublin City University and Mount Temple Comprehensive School, Dublin (Kirby, 2020).

Everything VRE does is decided by its members and coordinated by an Education Officer through monthly meetings and an annual workplan. All the collaborators, working as volunteers, come from CEV's community. Internal communication takes place primarily through information and documents exchanged by email and/or shared on social platforms.

6.2.2 Greenstar

Together with VRE, the other major no-profit educational entity operating in CEV is *Greenstar*, founded in Dublin back in the 1990s to popularize sustainability and promote a systems thinking approach to it. Differently from VRE, this NGO is also focused on hi-tech solutions as a vehicle for change, and its primary audience is represented by activists, architects, other NGOs, and community groups. Yet Greenstar's agenda and events are today more focused on a general audience than they were in the past, while schools and universities have become more relevant. Such changes are in part due to Greenstar's move to Cloughjordan in 2013: the shift from an urban to a countryside context has inevitably led to acquiring new partners and developing new audiences.

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[54] The *Deep Listening Series*, for example, has seen the participation of important guests such as American science-fiction novelist Kim Stanley Robinson.

Also a publisher, Greenstar is responsible for many of the educational courses, workshops, and events taking place in the ecovillage (from *Elements of Change* to the *Apple Festival*). Its strong interest in socio-technical innovation is shown, for instance, by the emphasis put on harnessing new technologies (such as digital fabrication and open source hardware) to build resilience and help to monitor and protect the environment[55]. Greenstar actively cooperates with a wide variety of partners across Ireland and Europe to contribute to develop a more sustainable and resilient socio-economic model. These partners include other NGOs and sustainability organisations, other members of the IEN (Irish Environmental Network), institutional actors (EU, State of Ireland, University of Limerick, commercial banks, ethical funds, cooperatives), and ECOLISE, an online educational platform supporting community-based initiatives on sustainability and climate change across Europe (Donohoe, 2020; Papadimitropoulos, 2018). Today, it is European projects like ECOLISE to play a key role in Greenstar's agenda.

6.2.3 FFL and Raw Loaf

Established respectively in 2014 and 2016, the bakery and baking school *Raw Loaf* and *Food for Life* (FFL) project are for-profit enterprises with a social purpose, in the sense that a fair profit and social goals are equally relevant to them. Raw Loaf bakes bread, and teaches how to bake it, while working on the promotion and diffusion of an alternative approach to the local production and distribution of bread. FFL uses the plots in the allotments to test alternative methods of growing vegetables at a small scale, and shares the results of these experimentations on a YouTube channel. With a highly focused educational scope, both enterprises (a) teach what they do in their everyday work, (b) tie their local activities to a global network through specific social platforms (production is local, but ideas are exchanged globally), and (c) represent an excellent example of socio-technical and socio-economic innovation.

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[55] See Chapter 5.

In the case of FFL, YouTube is the only social network used to exchange ideas and solutions through the comments posted below each video. Produced on a weekly basis, videos are quite short (10-15 minutes on average) and feature very precise topics – from germination to the issues of growing certain types of vegetable, from plastic use and reuse to the rules to produce a good compost. Occasionally, such videos can also offer more reflexive content about the project or address broader issues like climate change. FFL's growing channel is becoming quite popular across Ireland and abroad: from its inception in 2016, it has gained over 100k subscribers with more than 10 million views[56]. Since the project's fundamental goal is to convince people across the world to grow their own vegetables – to reduce carbon emissions and change our relationship with food – gaining more visibility and more subscribers is essential. This explains not only the decision (comprehensible for a one-man initiative) to concentrate all the efforts on a single social platform, but also the care devoted to keeping the conversation on the channel alive and engaging over time. The popularity that the project is acquiring clearly benefits also the ecovillage, for there are many people who decide to visit CEV primarily to meet FFL's owner, Jordan, and talk to him.

As for Raw Loaf, the link between the local and the global cannot be properly understood without considering *Real Irish Bakers* (RIB), a network of which Tom, the owner of Raw Loaf, is a founding member. RIB supports small, independent bakeries producing bread without bicarbonate of soda, flour improvers, preservatives or other additives. The very idea of a network of people working at a small scale, supporting each other, and sharing resources is in itself a way to promote socio-economic sustainability. RIB is also a global movement, with bakers from all over the world who collaborate online to change the baking system for the better. Although there are formal in-person meetings between members, within RIB information is shared primarily in a private group on WhatsApp, while daily exchanges within the global network usually take place on Instagram. It is mostly here, and only secondarily on Twitter, that

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[56] As of August 2022.

bakers share their knowledge and experience about baking techniques, the types of ovens and grains used, etc. through the hashtag #realbread. With the help of pictures and very short videos, these "global conversations" are learning opportunities to improve daily practices. A good example is selecting a recipe from a book once a month, baking the same bread a few times and then sharing comments about it. Another one is sharing information about the experience of growing different types of grains (as recently done by Raw Loaf in collaboration with FFL) in order to start a new conversation between bakers, millers, and growers. The key idea is to move over to explore new aspects of baking bread once a "critical mass" of bakers has been involved in the discussion on a certain side of baking.

6.2.4 The impact of the pandemic

The Covid-19 pandemic has affected the actors described above in very different ways.

VRE's work has been initially disrupted in terms of tours and visits, but over time the need to shift some of the initiatives online has been even beneficial. Originally seen as strictly place-based, VRE's activities have been reframed in broader terms through a blended offering which holds an interesting potential. Some of the changes made during the lockdowns are thus to become permanent.

The impact of the pandemic has been probably more positive than negative also in the case of FFL: whilst its activity has not been significantly disrupted, the lockdowns across the world have shown the importance of localizing food production to gain more autonomy and flexibility in terms of supply chains.

The side effects of Covid-19 have been felt more acutely by Raw Loaf and Greenstar. While the former has suddenly seen disappear its main source of income (the baking school courses), the latter has been obliged to put on hold its numerous events. Both Raw Loaf and Greenstar have eventually recovered through adaptation (online and blended activities being, once again, part of the solution), but the blow they have suffered has been huge.

6.3 The educators: sayings, doings, meanings

6.3.1 The professor

Kenneth is Professor Emeritus at the University of Limerick and CEV's research coordinator. A social scientist focused on issues of development in Ireland and Latin America, Kenneth started to see things differently when he got in contact, in Venezuela, with some friends involved in the environmental movement. Since then, he has always worked to integrate such issues into his studies; the decision to join CEV in the late 2000s, as well as a deeper involvement in its educational activities after his early retirement in 2012, came as a natural consequence of the path he had followed ever since the period spent in South America.

While he does not think to have changed significantly as a teacher since he joined CEV, Kenneth acknowledges to have become a different person – in the sense that most of the views he has developed in the academic environment have been challenged. He praises the ecovillage for teaching him what a community really is "the hard way", especially when it comes to accepting that one's views are not necessarily any better than those of the others.

Whilst not based on a precise routine ("every day is different, and so every week"), his educational work is very similar to what he used to do as an academic, but with more flexibility. Kenneth usually combines tours of the ecovillage – about history, land, members, governance, the centrality of community, livelihood, and synergies – with more detailed presentations on topics like governance systems and project management. In such occasions, the information provided about the ecovillage is always complemented with some facts and reflections on climate change and the low-carbon transition. Kenneth's contribution to CEV's educational activities also includes the publication of articles and books' chapters documenting the work carried out in the ecovillage and its major achievements. All these activities are based on the regular accomplishment of a set of tasks: researching, studying, preparing, and updating the material on which presentations are based, attending meetings, and exchanging emails. Emails are used particularly for internal communications and frequent exchanges of

information with students and researchers (or just lay people) interested in the ecovillage. At the informational level, Kenneth's personal engagement in digital platforms like Zoom has never become significant despite the changes forced by the pandemic. What he really deems informative comes primarily from the in-person social relations and the academic or journalistic sources that feed his work and, more in general, VRE's mission.

When it comes to the practical meaning[57] that Kenneth attaches to his work, it is eventually the will to spread ideas and solutions about sustainability through place-based education to count the most. He aims to offer "a certain leadership in trying to hold and being faithful to the vision of the project", and he is able to do so by virtue of the authoritative position he holds within VRE and of the connections that he keeps cultivating with the academic world to the benefit of the ecovillage. This translates in Kenneth's good ability to make his and VRE's meanings important to CEV as an educational project.

6.3.2 The facilitator

Max's work is centred on event design and organisation, training, and facilitation, a manifold activity meant to support group working and learning. He became interested in sustainability after a coming-of-age trip to India in the early 1990s ("this gave me a stronger sense of my own self: without it, I wouldn't know what to do"). The university courses he attended afterwards and the intellectual figures with whom he became acquainted – such as the economist and ecologist Richard Douthwaite and John Seymour, the pioneer of the self-sufficiency movement – led him to embrace systems thinking and permaculture (see Table 5.1). Willing to help to build the emerging sustainability movement, in the late 1990s Max co-founded both Greenstar and CEV.

The fact that even today Max thinks of himself more as a facilitator than as an educator is telling of his belief in the importance of learning together: "I'm always

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[57] The term "meaning" is used in the sense defined by Wenger (1998): as an experience of everyday life.

framing my work as 'co-learning': I emphasize that I'm learning as much as the learner, for I'm facilitating the learning process rather than "transmitting" knowledge". To him, becoming a facilitator has been strongly associated with the idea of interconnectedness since the very beginning ("that understanding has made a big difference to me"). And the learning trajectory he has followed over the last 25 years has always been more functional to community building (bringing together, motivating, creating connections, developing competences and skills) than to anything else.

As Max has observed about CEV's educators,

> It is through our connections that we are developing our own competencies and skills. I might not learn from Tom the specific competence of making bread, but there's something that he brings (his awareness of the importance of good grains, for example) I could learn from. Same with Jordan: I meet him every day, but my learning may come from watching the video he is producing for YouTube.

This is clearly the kind of "learning together" that, in Max's view, should be supported and strengthened by the Learning Alliance project.

Differently from Kenneth, who carries out much of his work in his private study at home, Max tends to move frequently from place to place, but it is the enterprise centre to represent the place where most of his activities are conducted. His most recurring tasks are working with groups, delivering webinars, designing, developing, promoting, and facilitating events, training with clients and partners, attending in-person and online meetings to push forward various initiatives and projects.

The information that Max uses for his work comes from, and is shared across, a wide range of activities: meetings, events, and informal encounters (both online and in-person) pertaining to Greenstar, VRE, and the farm. Books, articles, emails, podcasts, and social platforms (especially WhatsApp and Slack) are important as well for developing projects and events and, more in general, to feed learning and imagination. All in all, what is most informative to him is anything – a podcast, a book, an occasional chat, an email – concerned with the overall development of CEV as an "ecosystem" of education and innovation.

From what observed so far, it is evident that community building for sustainability is the key meaning attached by Max to his work. It explains not only his

close identification with the ecovillage project and his deep commitment to it, but also his growing attachment to the purpose of "being useful and stepping in whenever it's needed" (hence his active – and sometimes disputed – involvement in multiple roles at the same time). As a charismatic co-founder of CEV and Greenstar who plays an important role within VRE, Max is in the position to make the meaning he attaches to CEV's education count with respect to the formal policies and strategies adopted to develop the educational side of the ecovillage.

6.3.3 The permaculture teacher

A permaculture expert and business partner of Max, with whom he co-founded both Greenstar and the ecovillage, Paul came to consider environmental issues through a socio-cultural and economic perspective: his core concerns are systems thinking and the ways in which the understandings on resilience and regenerative approaches can be effectively implemented in the real world. It is because of this holistic perspective that, back in the 1990s, he decided to spend a couple of years in the United States to study with the activist and theologian Matthew Fox and his group ("I didn't want to enter a formal, traditional, academic environment").

Paul's identity as an educator comes from this background, as well as from his work as Managing Director of Greenstar, now spanning more than two decades. Focused on the coordination of Greenstar's multiple projects and partnerships, he has a quite regular routine – working daily at his office in the enterprise centre (Figure 6.1) – and he is not directly involved either in VRE or in the farm.

Paul devotes himself not only to teaching (which includes instruments as diverse as 2D/3D design tools and shovels), but also to administration, supervision, coordination, planning, course designing, and studying. When asked about his learning experience as an educator in the ecovillage, he mentioned the inevitable changes coming from community life, but he didn't identify anything more specific. This might suggest a substantial continuity between the two periods preceding and following Greenstar's move to Cloughjordan.

Paul acquires and shares information mostly through in-person chats and meetings, emails, and social platforms (especially Twitter), and what seems to be most informative to him entails personal relations and sources built around Greenstar, its mission, and its development. Differently from Max, however, a greater attention paid to design (as proved by his interest in the development of the FabLab) makes Paul more inclined to identify technical, practical experimentation as a significant source of information.

Developing and applying new understandings on resilience and peer-to-peer/common-based approaches is the key meaning that Paul has attached to his role in Greenstar since the very beginning. Since his identity as a practitioner seems to be tied more to the work and goals of Greenstar as an actor of CEV than directly to the ecovillage, such a meaning is likely to be more influential within Greenstar than with respect to the formal educational policies defined by VRE.

6.3.4 The architect

The FFL project is the brainchild of Jordan, an architect and expert in food security.

Figure 6.1

The open space of the enterprise centre

Grown up in a Canadian wooded valley ("with a river in the back garden and a pond across the way"), Jordan has always been interested in ecological and sustainability issues. Still very young, he became a climate activist interested in policy-based issues, and soon his attention shifted to food and urbanism. He then started to explore "different ways in which we could live good lives with a reduced impact on our local and global ecosystems". It was only after understanding the importance of food as a key area connecting all these issues that he became an expert in food security. Yet what eventually shaped his identity as an educator is, more than anything else, his experience as an architect:

> What architects do is taking a huge range of issues, domains, and constraints in order to create something that fits and satisfies the needs within that certain space. The more you understand all these aspects, the more you can recognize that no design is ever going to be perfect. But you still have to produce something. And it is going to be only partially successful: within that, there is always an awareness of potential failure. Architects always have to face the benefits and flaws of everything they do.

Jordan considers FFL "an architectural project" precisely because dealing with the achievements and failures of growing food is the key aspect on which his learning and educational endeavours depend. Grounded in systems thinking, Jordan's approach sees context[58] as fundamental: no answer can be provided without it, for there's not a single method which is going to work anywhere, anytime. There's no silver bullet. It follows that his choices (what to grow, how, and when) are always based on a very good knowledge of the concrete "perimeter" within which things can be done.

There are several key tasks that need to be carried out on a regular basis. Harvesting ("at the right moment: not a day before, not a day later") is done at least three times a week or more, and it can take a short amount of time as well as a few hours; regularity is essential also to keep the veg-fridge sufficiently supplied; watering and weeding are done on a regular basis. Then there is the fundamental task of producing videos ("the lion share of my business model"), most of which is accomplished with one single tool: his smartphone. After being recorded, the footage

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[58] Here, "context" refers not only to a specific place, but also to the worldviews and values adopted, as well as to the contingent resources available.

is downloaded on a laptop and labelled to include key information and relevant keywords. The video has to be edited, and once the voice over has been recorded, it can be uploaded on the channel. Other tasks include replying to the videos' comments online and supporting the farms' volunteers as a technical mentor. A spreadsheets is used for task management because of the many different aspects to track: actions, activities, and observations are regularly recorded and quantified whenever possible. Finally, there's a wide range of gardening tools which are employed together with a four-wheel cart used to pull things back and forth from the allotments. In its entirety, this is a physically demanding work carried out *on* the ground and founded on information collected *from* the ground.

Jordan's ways of seeking and sharing information excludes almost completely meetings, official documents, and emails in favour of other sources, such as the lessons he's learning from his work and the conversations held with those who are interested in the goals and broader implications of his project. Yet it is telling that, by his own admission, it is his smartphone to represent the most important informative tool – an object that reifies the fundamental connection existing between his work in the allotments, the data collected from it, and the sharing of the results of his experiments on YouTube.

In sum, Jordan's project is mainly focused on vegetable production, the continuous experimentation and development of new techniques of growing food, the refurbishment of the veg-fridge, the creation of YouTube videos, and the regular exchanges of comments on the channel. Though individual, his enterprise entails a fundamental social dimension. On the one hand, Jordan often devotes part of his time to initiatives aiming to foster closer connections between the members of CEV: such is the case of the Tuesdays lunches he used to organise at home before the pandemic. On the other hand, he thinks that growing vegetables is one of the most effective ways to build communities, for it changes both our relationship with food and our traditional view of how supply chains work.

According to Jordan, education for sustainability should naturally stem from the unfolding of specific practices[59]. In other words, "you teach about *what you are doing*, not about *what you are only theorizing*":

> In my work, I do not really use the "scientific method". I am just exploring things and trying to answer some key questions: how to grow effectively a lot of vegetables? What are the design principles to follow? What are the things to take into account? What should one be trying to achieve? My videos are all based on what I am currently doing and experiencing, on what is currently happening – not on ideas or things done in the past.

The key meaning that Jordan attaches to his educational work is therefore showing the successes and failures of experimenting new methods of growing food, and offering concrete examples based on first-hand experience: an approach whose efficacy is measured by the number of people who, as a result, start growing food on their own.

Jordan is strongly focused on his enterprise, but less invested in the educational goals of the ecovillage as a whole. He has no say within VRE (of which he is not a member) and only rarely does he participate in events like *Elements of Change*. Informally, he is a very active member of the community, but his formal involvement at the managerial and organisational levels is minimal mostly because of a series of very negative experiences he faced in the past.

6.3.5 The bakers

Tom grew up in Dublin in the 1970-80s, at a time in which the Irish economy was weak and many people still had some experience in growing food in their rear gardens. While Tom's ties to the food sector started with the macrobiotic whole-foods centre founded by his parents in Dublin in the late 1970s, his ecological awareness stemmed from his early working off-shore experience in the gas and oil industry. A few years after returning to Ireland, Tom opened Dublin's first fully certified organic commercial bakery and pioneered the introduction of modern sourdough breads. His wife Patricia had become aware of the political and environmental issues of the time while still living in

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[59] Interestingly, this is a view fully coherent with Wenger's (1998) CoPs theory.

Wales in the late 1980s. When she and Tom decided to start their family in Ireland, they realized that places like the Scottish ecovillage of Findhorn made much more sense to them than Dublin.

The couple came to know some of the people involved in the Irish ecovillage project through Greenstar and the Dublin Food Co-op. In the early 2000s, they joined CEV, and about ten years later Raw Loaf was founded to oppose the continuing demise of artisan and craft bakeries in Ireland. While still working in Dublin, Tom had understood that industrial-scale baking was replacing small independent bakeries, and that in order to keep making high-quality, healthy bread that trend had to be reversed.

To Patricia and Tom, becoming educators in Cloughjordan was driven by the urge to embody and spread a more sustainable and fair model of baking bread – hence the essential importance of developing and sharing their first-hand experience. As put by Tom,

> It's all about experience. I think it was only after ten years of practice that I really started to get what was going on within baking. When you get such a concrete understanding, teaching becomes much easier. And as soon as you can see the benefits of such changes, the motivation to shift gets stronger and stronger.

Sourdough bread is prepared and baked three times a week with the use of a wide range of baking tools, and there's a set of routinary tasks that both Tom and his wife must accomplish: from the acquisition of raw, organic materials to the preparation of loaves and the delivery of bread, this is a physically demanding activity. In terms of organisational effort, it is the tasks pertaining to the Bread Club to be the most demanding: through this initiative, subscribers across CEV and the old town are offered home delivery at a lower price (in comparison with local supermarkets) with a monthly-payment formula. As a service meant to support the local community in a way similar to Jordan's veg-fridge, the Bread Club is maintained despite its huge workload and scarce profitability.

In the case of baking courses complexity is even bigger, for a single one-day class demands some months to be developed and organised. Every single recipe, for instance, needs to be tested to ensure it works properly, and it is chosen by considering

the time available, the goal of the course, and its expected learning outcomes. As

explained by Tom, it is actually the evening before that the course begins:

> The evening before we prepare the starters, make sample breads, and start preparing
> the space in the bakery. All of that must not only be done – it must be facilitated. Just
> before people come in, I get changed and change my frame of mind as well, from a
> baker to a teacher. During the course, we have to go around, checking in that everybody
> is fine, and making sure that they know what they are going to get out of this learning
> experience. Towards the end, they all take their breads out of the oven with smiling
> faces.

Online courses, introduced during the pandemic, have been a necessary but not easy

choice to make for both technical and organisational reasons. During the first lockdown,

there were practical issues to overcome, such as the absence of fibre broadband in the

ecovillage and the couple's lack of experience in online teaching. Although these

problems have been successfully overcome, online courses have proved more complex

to design, organise, and deliver: design takes about three months, three cameras have

to be set up, bits of work must be recorded beforehand, and baking packs have to be

sent out to make sure that all participants use the right tools and the very same

ingredients. Other secondary but still important tasks include the creation of free online

tutorials and the management of Raw Loaf website's shopping area.

To Tom and Patricia, what is truly informative for their work practice comes from

their daily engagement with the bakery and the school, their collaboration with FFL,

and their regular online interaction with the national and global Real Bakers movement.

As in the case of Jordan, Raw Loaf's online informative exchanges are much more

frequent and regular with people outside of CEV than with the vast majority of their

fellow educators in Cloughjordan[60]. Engagement on social platforms is very significant,

for the development of a global movement would not be possible without the constant

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[60] Apart from the collaboration with FFL, it is worth mentioning a recent experience of co-learning with a
dance teacher living in the community. They have brought together their skills in order to learn from each
other. Because of the still ongoing pandemic, everything has been done online. As put by Tom, "that was
something completely new, and went on for a few weeks, with interesting conversations about our work
and dance choreography. Just brilliant".

exchange of ideas and observations about the practical testing of new types of grains and bread.

Like Jordan, Tom and Patricia relate the central meaning of what they do to the constant improvement and spreading of a socio-economic and socio-technical practice aiming to promote the development of a more sustainable and fairer society. "In contemporary capitalism, the relationship between the producer and the buyer is often lost or weak", has pointed out Tom. "We are changing this relationship to make a better life possible". Their identities as educators have been built around this core idea, which they embody every day in their work. Though contributing to a more sustainable society through the spread of what they call "meaningful transactions" is fundamental to them, it is not the starting point of their work: it is one of its most important outcomes.

Because of a keen focus on their enterprise, Patricia and Tom don't participate in VRE's decision making processes, nor are they active in any capacity at CEV's managerial and organisational levels. Yet they give tours for VRE and participate (more often than Jordan) in numerous events and initiatives.

6.3.6 The agri-food expert

Similarly to Max, Charles splits his working time across multiple activities. He is a part time lecturer at University College Cork (UCC), a consultant, and a regular collaborator of CEV's farm (of which he is currently the chair of the board), VRE, and Greenstar.

Initially focused on politics and philosophy, over the years he has become more interested in sociology, sustainability, socio-economic and socio-ecological resilience[61] – particularly in relation to the agri-food system.

At different scales, his very broad portfolio of activities include fundraising, delivering courses, giving talks and tours, writing articles, designing, organising, promoting and delivering events and festivals, helping the farm working effectively as a

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[61] Such types of resilience are respectively about making communities stronger within the means available, and about improving their overall environmental impact.

team. Some of such tasks tie to his European work on rural resilience and agroecology. This considerable workload demands a certain degree of routinization, with some weekdays assigned to each area ("my calendar is full of deadlines"). Daily and weekly tasks, such as extensive reading, emails, and meetings, are thus essential to bring things forward.

Charles' information-related activities, centred on various social platforms (Twitter, Facebook, and Instagram) used to share information and promote CEV's initiatives, involve also the personnel in the European institutions and some specialist sources on agri-food and rural policy. In general, anything that can shed light on how to build socio-economic and socio-ecological resilience at different scales through agri-food, rural, and cooperative solutions – the key meaning of his work – is deemed informative. Such is the case of the photographs of the activities taking place in the farm, that can be used as promotional material, become part of a broader story about the ecovillage, integrate news on socio-technical innovation, or simply document community building between volunteers:

> So there'd be like photographs of our interviews or meetings with the twenty "odd people" involved in the farm. I'm literally using those pictures for a report about Irish agri-food policy. The pictures of the farm, the model we use to operate, the number of people we have, the practices we carry out – all those elements become part of the educational story. And that context is actually very real, "true". It's not like a book or whatever.

Charles' diversified competencies and flexibility have made him a precious collaborator across Greenstar, VRE, and the farm, but he is not a member of VRE and he doesn't necessarily see himself as one of the people driving CEV's educational policies.

6.3.7 The youngest educator

An habitual collaborator of Greenstar over the last few years, Sean is one of the youngest educators and facilitators in the ecovillage. What makes him quite unique among CEV's educators is the fact that he has grown up together with the ecovillage: when he moved to Cloughjordan with his parents in 2007 he was just a teenager, and CEV hadn't been built yet. It was only after being involved in some group coordination

activities during a trip to Italy in 2015 that he came to see the ecovillage in a different light. Sean's coming of age was marked by an identification with this community which is still strong today. It is fair to say that "growing up around very interesting people, with the opportunity of learning from their experiences and enjoying their activities" has deeply defined his identity as an educator, facilitator, event organiser, and activist.

His areas of expertise relate to the social dimension of sustainability and include non-violent communication, restorative circles (both used to deal with conflicts and restore relationships within communities), and mindfulness. He also designs and participates in the organisation of live events. Part of Sean's work is project-based, with other streams of activities taking place between projects. When such events were more numerous (before the pandemic), that meant working for weeks or months on a sprint, with the most intense workload during the spring-summer period and a relatively calm period during the winter.

Sean considers his laptop as a formal teaching tool – probably the most important – which he uses in combination with other materials like flipchart paper and sticky notes.

Despite his reliance on podcasts, social platforms (Facebook and Twitter), and books as sources of information, it is people and the relations built with them to prove mostly informative to his educational work. This emphasis on mutual, personal engagement helps to explain Sean's recent detachment from social platforms as a way to connect with people, the huge importance he attributes to the organisation of live events ("I'd love to see more of that"), and his strong interest in the Learning Alliance ("information sharing is an area in which we are quite poor on").

His interest in the values that can bring people together and promote socio-cultural change, as well as in the methods and tools which can help overcome tensions and conflicts, stems from a core meaning tied to the cultivation of fruitful relationships: it is telling that, in his view, mutual trust is essential to information sharing. Although he is not a member of VRE, the meanings he values the most are embraced by influential educators like Max and Kenneth.

6.3.8 The activist-poet

Agnes is a poet and environmental activist who has become more and more involved in CEV's events and projects since 2016. Yet it was only in early 2020, right before the pandemic, that she moved to Cloughjordan to start a regular collaboration with the ecovillage as an educator. Her areas of expertise encompass social permaculture, public relations, non-violent communication, and facilitation, and most of her everyday tasks consist of exchanging emails, making in-calls, and attending meetings. Greenstar, where she works mostly with Max and Sean, represents one of her principal collaborations, while she is not a member of VRE.

What is most informative to Agnes comes primarily from in-person social relations. Meetings and informal encounters are essential in this regard, and although both emails and Slack are often used to exchange messages about work, social platforms are not deemed very important to connect with people.

Agnes is therefore developing her identity as an educator in terms of creativity and relationships (arts, non-violent communication, facilitation, social permaculture). The central meaning she attaches to her practice pertains to the implementation of the social changes necessary to overcome the ecological and climate crises.

6.3.9 The engineer and the technician

One of CEV's founders, Nell is a versatile expert in green/natural building and water systems and, at a more basic level, a teacher of biodiversity, food systems, and permaculture. Over the years, her technical expertise has proved essential to the ecovillage: for example, she has worked as a supervising engineer on the construction of the amphitheatre and helped to rebuild the green cabin close to the farm. As a person with a formal academic background, such experiences have exposed her "to a lot of a more interactive and experiential kind of learning". Nell gives tours and online presentations during the week, and she also collaborates with Greenstar (particularly on the permaculture course), but her current involvement in CEV's educational policies and

activities is very limited. The vast majority of her teaching is quite traditional ("I talk, you ask questions") and relies on standards tools like pen, paper, and slides. Yet from time to time more specific objects and artefacts are used for practical demonstrations on the ground[62]. Given her very practical approach to learning, similarly to Jordan she has come to associate her educational work with the will to explore, learn, make mistakes, and understand why things do not often work as expected.

Ned is a sound engineer who started his collaboration with the FabLab (Figure 6.2) in 2015, right after attending a course in digital design and manufacturing. He then went on to develop some projects and, for the most part, he learned just by doing things on his own, as in the case of the laser cutter: "When someone asks me how a certain thing could be done with a certain material, I ask for a sample, do some research, and then try it". Ned has the competence and skills to teach how to use some of the key instruments of the laboratory (especially the laser cutter), but a significant lack of both resources and work continuity over the last few years – not to mention the

Figure 6.2

The FabLab, part of the enterprise centre

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[62] Such is the case of the "mud bench" built in the surroundings of the enterprise centre: the students of the permaculture design course are given practical examples of how to shape it with different combinations of materials.

pandemic – has made any possible development a challenge. As a consequence, his role in education is still marginal. At the moment, however, there are few ongoing collaborations with both Greenstar (on the permaculture course) and VRE (short introductions to the lab for schools and universities).

Nell's and Ned's approaches to information seeking and sharing grants priority to informal chats, *ad hoc* research, and direct experimentation. As put by Nell, "if you're going to teach something, you must know it also from a practical standpoint". The use of social platforms, not central to Ned's work, is negligible in the case of Nell, who openly dislikes digital technologies. Both of them have become educators of the ecovillage by virtue of their technical ability to design and fabricate tangible things – from a house to a water-treatment system, from a bookcase to a cabin. Thus, they tend to attach the core meaning of what they do to the provision of practical solutions to practical problems.

6.3.10 Asymmetries in collaboration and information sharing

What described above highlights the existence of evident asymmetries in collaboration and information sharing between the various educational actors of the ecovillage.

Although VRE and Greenstar are regularly in contact with each other and have complementary (and sometimes overlapping) audiences, their active cooperation on projects and initiatives is very occasional. The same is true of the relationship between VRE/Greenstar on the one hand, and Raw Loaf/FFL on the other: the only case in which they collaborate on the same educational initiative (with the notable exception of VRE) is the permaculture design course – which, however, has always been a Greenstar's project. Cooperation is closer and quite regular, instead, between Raw Loaf and FFL. Similar asymmetries affect also information sharing, which regularly takes place only across subgroups of educators or specific projects (Table 6.1).

Table 6.1

Educators: how they collaborate and deal with information

Educators: roles & areas of expertise	Frequent collaborations & information sharing	Sources of information for work	How information is shared
Charles (Chair of the Board of the Farm) Agri-food and rural policies, socio-economic resilience	Max Paul Sean	European institutions Specialist sources on agri-food and rural policy (NGOs and specialist media) Academic and non-academic articles Farm (i.e., photographs)	Emails Instagram Twitter Facebook Formal meetings* Informal conversations**
Jordan (FFL's founder and owner) Food security, architecture, permaculture	Tom Patricia	Smartphone Continuous experimentation of techniques to grow vegetables YouTube Veg-fridge	YouTube Emails Informal conversations
Kenneth (CEV's research coordinator, member of VRE) International politics	Max Sean	Academic and non-academic articles Books Newspapers Magazines Twitter Informal conversations	Emails Formal meetings Informal conversations Google Drive Twitter
Max (Greenstar's co-founder, CEV's co-founder, member of VRE) Group facilitation, events' design & organisation	Paul Kenneth Charles Sean Agnes	Emails Slack Non-academic articles Podcasts YouTube Books Informal conversations	Emails Slack WhatsApp Google Docs Facebook Twitter Formal meetings Informal conversations
Paul (Greenstar's co-founder and Managing Director) Permaculture, systems thinking	Max Ned Charles Sean	Twitter YouTube Non-academic articles Books	Emails Formal meetings Informal conversations Google Docs

Educators: roles & areas of expertise	Frequent collaborations & information sharing	Sources of information for work	How information is shared
Sean (Greenstar) Non-violent communication, social permaculture, events design & organisation	Max Paul Charles Agnes Kenneth	Articles Books Podcasts Documents Facebook Twitter	Emails Formal meetings Informal conversations
Tom & Patricia (Raw Loaf's founders and owners) Sustainable methods of baking and selling bread	Jordan	Continuous experimentation on baking bread and cultivating different types of grain Instagram WhatsApp	Emails Instagram WhatsApp Twitter Raw Loaf website Raw Loaf Baking School
Agnes (Collaborator) Communication, social permaculture	Sean Max Paul Kenneth	Books Articles Educational material Personal experience	Emails Slack Formal meetings Informal conversations Facebook
Ned (Part-time technician of the FabLab) Laser cutting 3D printing	Paul Max	Experimental work in the FabLab Informal conversations	Emails Informal conversations
Nell (Collaborator) Green/natural building, water systems	Jordan Max	Research and direct experimentation Books Articles YouTube	Informal conversations Formal meetings Emails

* Formal meetings are both in-person and online.

** In this study, information sharing and meetings are considered "formal" only when related to official occasions.

6.4 Rules and the dilemma of autonomy

As explained in Chapter 2, Schatzki (2002) defines the rules governing a practice as the "programmes of action" specifying what to do to inform the future course of activity within that practice.

When it comes to considering what rules inform CEV's practices of education for sustainability taken as a whole, the educational policies adopted by VRE are the closest thing one can mention. Yet such policies are very broad, and they don't aim to constrain the work of educators and enterprises in any significant manner. Preserving the autonomy of CEV's members has always been one of the main concerns in the organisation of the ecovillage, and VRE has neither the will nor the power to drive the educators and their activities.

This doesn't mean, however, that educators are free to do whatever they wish – quite the contrary. According to some, over time bureaucratic procedures have become a significant impediment to the development of new ideas and projects. It is in this regard that two members of CEV – who play different roles in the community – have voiced very similar concerns:

> Here in the ecovillage there's a general feeling of not enabling projects – an attitude from above to finding always good reasons for not making things happen: you can't have a great innovative idea and just do it. Massively complicated processes to do anything on the land, for example. And it's a minority of people who are very officious and bureaucratic… this sort of middle-class, urban love of bureaucracy is a big negative. We all get exhausted from trying to do very basic things here.

> Even something that nobody has any objection to is going to take at least two months to pass. We insist everything goes slowly enough for everyone to keep up, which causes frustration and stagnation.

A telling example of an education-related project halted by red-tape issues is that of the forest garden which should have been started a few years ago on the north-western edge of the urban quarter. As pointed out in a SPI letter of correspondence (2017) retrieved by Rantz Mc Donald (2019), the relative application was rejected because "the board of Sustainable Projects Ireland [SPI] is not signing licences with people who are

required to be members of the charity but who are not maintaining their membership in line with our current constitution" (p. 37).

Bureaucratization manifests itself also in the tendency to prioritizing formal procedures over deferring to those who work on the ground in different capacities. According to another member of the community, this can easily lead to the phenomenon of "groupism", the tendency to grant excessive importance to groups and meetings:

> Although many can't attend meetings (or don't know when meetings are taking place, or can't see the benefits of attending them), the organisation tends to become "meeting-based": only those showing up at the meetings are considered the ones who make the decisions. This, in turn, diminish the degrees of collaboration between those who organise what needs to be done and those who do it.

Striking a balance between supervision and individual initiative represents a huge challenge across the ecovillage, and the issue of autonomy remains controversial.

Some educators think that the degree of self-organisation introduced by the Viable System Model (VSM)[63] has promoted both creativity and autonomy. The fact that important initiatives and businesses have spontaneously developed both in the ecovillage and in the old town over the last decade backs this view. Others, however, argue that more could be done by establishing "reasonable processes where the autonomy of the people doing the work can be respected". A concrete example would be allowing a member to create a formal group where he or she is "the only person who can decide who is going to be in that group".

While the case for a greater autonomy is clearly understandable, there are nonetheless circumstances where supervising and consulting before deciding, as acknowledged by a co-founder of CEV, can be "really helpful and save a lot of conflict". In this respect, it is telling that the adoption in organisational studies of the self-organisation perspective has been delayed by the disputed degree of autonomy of the agents: the existence of naturally asymmetric power relationships within any type of

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[63] See Chapter 5.

organisation makes it easy to contest the argument that agents can be equally and harmoniously autonomous (Anzola et al., 2017; Boehm, 1999).

6.5 Goals and affectivity in practice

Educational practices are inevitably affected by the problems described above, but the tensions that could hamper the development of the Learning Alliance go well beyond the unbalanced relationship between autonomy and control.

Although the broad educational goals defined by VRE are widely shared within CEV, the multiplicity of meanings attached to the different practices highlights substantial divergencies on the nature of education for sustainability – on what it is and how it should be carried out. And the picture wouldn't be complete without considering also the tensions raised by the very presence of the educators in the ecovillage. Given that the full ethos of the project hasn't been conveyed effectively to most of those who have joined CEV after 2009 (Campos, 2013; Rantz Mc Donald, 2019), there are significant differences across the whole community about the scope and relevance that education should have in the ecovillage.

Looking at the teleo-affective structure (Schatzki, 2002) of CEV's educational practices can be a good way to better understand how the tensions they generate depend on their goals and the affects attached to them, as well as on the relationship between carriers, artefacts, and places. Practices are "affectively attuned" in the sense that they feature affects (meant as moods or "emotional attunements") associated with them rather than with the single practitioners (Reckwitz, 2017). No longer conceived as qualities or properties of the individual, affects are thus processual and relational because affectivity is "always a relation between different entities" (Reckwitz, 2017, p. 120). From such a standpoint, for example, motivation is not an individual emotion bringing a person to a practice: on the contrary, it's the practice itself to entail motivation as one of its processual components.

The general goal of making CEV an authoritative educational and research hub on sustainability to support and accelerate the community-led response to the climate-

ecological emergency can be articulated in two main points: (1) showing people why and how CEV represents a living example of socio-economic and socio-technical solutions and innovations for sustainability; (2) promoting the spread to the mainstream of such innovations at multiple scales through the active involvement of more and more people, organisations, and institutions in Ireland and around the world.

A deeply felt ethical commitment is probably the first element to stand out with regard to such goals. Most educators embody their work to the extent of seeing it as a "mission" for which it is worth living:

> I like doing things I think are necessary, offer a contribution – that brings meaning to my life.

> I would be depressed, personally, if I lived in a house estate without doing what I do: I need to live like this.

This commitment can also stem from a real sense of urgency:

> We need to act, and this is how we embody our philosophy and response to the climate crisis.

> Given the challenges posed by climate mitigation and adaptation, we must be successful.

> The main reason I am drawn to the work I am doing is building that kind of society that we need to survive.

Or it can be founded on an unshakeable belief:

> That [the creation of a sustainable society] is a shift I'm never going to see the fruits of – but, like planting a tree, you just know it is a good thing to do.

> You do what you can do regardless of whether it is going to work or not.

> I've never questioned my path within sustainability once.

> I think one must do something about it even if it's too late.

> My work is based on the belief that it will make a difference, and if I didn't believe that I wouldn't be doing it.

Finally, ethical commitment can be even more important than any desire to improve one's socio-economic status:

> I'm not building a career.

> Making money seems to be always the primary thing. Once that's ok, there are the "secondary" aspects to consider [fairness, equality, the good of the community, etc]: can we now fulfil our social obligations? It should be the opposite: one looks at those aspects first, and then considers how to make a livelihood on the top of that. If it is not feasible, then the whole thing must be reworked.

All these sayings point to a variety of affects that include ambition, social care, determination, and genuine enthusiasm (Table 6.2). On the flip side, the tensions pertaining to the nature, scope, and relevance of education within CEV must be understood against a background where the frequent lack of resources, the highly intensive work of community building, bureaucratic impediments, and the fragmented ethos of the ecovillage foster uncertainty, frustration, conflictual attitudes, and fears of burnout (Table 6.3).

6.5.1 Places and artefacts

Understanding the affects attached to CEV's educational practices means also considering the places and artefacts through which such practices are carried out (Reckwitz, 2017). Through the allotments described in the previous chapter, for instance, the land owned directly by CEV as an educational charity has been essential to make projects like FFL possible. As the key component of an ambitious project, the allotments and their surroundings have developed into a place supporting teaching activities and the exchange of ideas about food and sustainability. On the one hand, this has favoured very positive attitudes towards this area and the many opportunities it generates. On the other hand, it is the communally-owned land to have fostered tensions between members who claim that nobody (not even educators) should be allowed to make a profit from it, and members who argue that profit is justified if there's a relevant social or communal purpose at stake.

Besides the allotments, the enterprise centre is mostly associated with positive moods (energizing, sharing, creating, socializing) for the fundamental role it has always played as a hub of social connection, socio-technical innovation, and education. Another powerhouse of positive affects is Raw Loaf's bakery and bread school. Its physical closeness to Tom and Patricia's home reflects the substantial continuity

between socio-economic innovation and everyday life which characterizes many parts of CEV. The broad affective network built around the bakery – one of mutual support and genuine passion for baking high-quality bread – is constantly nurtured by enthusiasm and ethical commitment.

Table 6.2

Positive affects attached to CEV's education

Affects	Sayings
Perseverance / determination	By being on the edge of things, we just keep trying to push that edge. One just must keep making things, finding problems to fix, getting involved in new projects.
Enthusiasm	When things work well, what you do here can be fantastic. It's about building my own understanding and competency – and being excited about it. The educational part of the project was so important, and it's one of the main reasons we moved here. We didn't move here to live in a glorified, gated community.
Ambition	The goal of my project is to change the world.
Care for stronger social bonds	When people feel they've been trusted, they'll treat you differently. Growing one's own food reinforce local relations between people who do care about each other, and this, in turn, strengths social resilience. Having a social purpose is very important to us.
Self-confidence	Our strength is the cluster of skills, knowledge, and brain power – and, of course, the ability to share these things.
A strong sense of inquiry	You must be curious, hungry to learn.

Table 6.3

Negative affects attached to CEV's education

Affect	Sayings
Frustration	Because so much of everybody's time is involved in other issues, education is always very important to CEV as a whole, but not a real priority. The potential is there, but we need more resources to develop it. I know that many of the [educational] things I'd like to do are a bit premature for the huge amount of work that needs to be done at other levels.
Uncertainty	We had some good work coming in, but every time we made a step forward, something negative happened. I'm a 'doomer', so looking at what could possibly go wrong is a big part of the background of what I do.
Fear of burnout	A lot of my colleagues have suffered from burnout. I try to avoid overworking.
Tensions concerning the scope and relevance of education within CEV	Education is not seen positively by everyone living in the ecovillage. I think many members like the idea of education, but not its practicalities. The idea of being reactive rather than proactive makes me uncomfortable in terms of what we can offer as an educational hub. There are different views on the degree to which education should be relevant within the farm. I think that, if you are an educator, you should be automatically involved in VRE. An obvious, massive gap concerns the young people in the wider community of the old town. We are insular in this regard, and they have no connection whatsoever with us.
Tensions concerning the nature of CEV's education	The trials and errors, the experiments, and the successes and failures of the whole community could provide great insights into what works and does not work. This is of great educational value. These [mistakes] are incredibly valuable things of which we should talk about, but we don't – because it is perceived as a failure, and/or because this would mean criticizing some people in the community.

More ambiguous are the affects towards *Cuan Beo*, an educational area in development on the southern border of the farm (Figure 6.3). With a wood cabin, two polytunnels and a sensory garden, this interesting project has raised hopes, tensions, and disappointment. The numerous delays determined by the pandemic, and the different views existing on its ultimate purpose have raised contrasting feelings and attitudes about its future development.

FFL's veg-fridge[64] is instead an excellent example of an object generating mixed affects. To those who see it as a way of profiting from the allotments, it might represent a source of disagreement. To those who accept it as an experiment to help and educate people, it can be a model to follow, an inspiration, a good reason for living in an ecovillage. As recalled by Jordan,

> Over the last few years, the two kids of a very close neighbour have got used to come here to the veg-fridge, pick some vegetables, and bring them to their mother: they eat those vegetables, not those coming from the shop in the old town. They know I grow those vegetables, they know where I work, they know where those vegetables are coming from, they know that the waste goes to the compost… They are becoming aware of the whole food cycle, of the changing of the seasons, of the fact that certain types of vegetables are available only in certain periods of the years.

Figure 6.3

The educational area "Cuan Beo"

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[64] See Chapter 5.

It is difficult to see the veg-fridge as a tool for community building: it is a "one-way model" where there's no direct connection between who is buying and who is selling. Yet its relevance from an affective and educational standpoint is evident.

Another object which is even more important to Jordan's work is his smartphone – the principal tool he uses to bring the results of his experimentations on growing food to a national and global audience:

> This [the smartphone] is where I keep track of my channel, answer to most of the comments, do a lot of research (images included), write and record most of my scripts for the videos, record information… Without it, I don't think I could do the work that I do. It's a very efficient solution, and when something cannot be done properly on the phone, I use my laptop.

The kind of affectivity connecting Jordan to this tool in practice is comparable only to the connection existing between Tom and his masonry oven. Though completely different in nature, such instruments play a very similar role within Jordan's and Tom's respective practices: manufacturing the key outputs (YouTube videos and bread loaves) of the business models that such practices embody. Only in these two cases – with the partial exception of the FabLab's laser cutter and 3D printer – is it possible to identify a single object which happens to be so essential to the goals of an educational practice.

When it comes to considering Greenstar and VRE, it is places rather than single artefacts to matter the most: from the broader area surrounding the enterprise centre (including the allotments and Cuan Beo) to the urban quarter, spaces (and the way in which they have been designed and organised) combine with tools, buildings, and other artefacts to provide the material landscape where education for sustainability – as in the case of the permaculture course – can be performed. It is in this sense that the term "place-based education" must be understood: educational practices cannot be separated from the places and artefacts through which they are generated and renewed over time.

6.6 Conclusion

The teleo-affective structure (Schatzki, 2002) described in the previous section shows that CEV's educational practices, though galvanized by a widespread ethical

commitment and a strong sense of community, are affected by tensions that might jeopardize the development of the Learning Alliance project.

Amplified by recurrent issues like insufficient resources and bureaucratic delays, such tensions stem, on the one hand, from the different (and, sometimes, conflicting) meanings emerging in practice; on the other, from CEV's fragmented ethos, with part of the residents not supporting, or even opposing, the educational commitment of the ecovillage. While both practical understandings and rules are essential to know how a practice is carried out – and to grasp what is happening right now – it is only general understandings (Schatzki, 2002) and central meanings (Wenger, 1998) to make practices' identity truly intelligible: why are they the way they are? What led to the current situation? What could be done differently?

Partially addressed in sections 6.2 and 6.3, these questions must be now extended to the very notion of "education for sustainability". Used so far only to label the multiple educational activities which pertain to sustainability in its economic, social, and environmental dimensions, this term has never been defined in detail for a very simple reason: CEV's educators do not share a common notion of it, and some of them don't even use this expression at all.

Moving from this specific issue, the following chapter aims to understand how information in social practice (Cox, 2012) might help CEV's educational practices to jointly perform some degrees of commonality: the starting point of the Learning Alliance.

Chapter 7

Meaning, power, and the building
of the Learning Alliance

7.1 What is education for sustainability?

7.2 A leading centre for place-based education

7.3 Bringing people together to popularize systems thinking

7.4 First-hand experience as the starting point of learning

7.5 Pathways and obstacles to the Learning Alliance

7.6 Harnessing information in social practice

7.1 What is education for sustainability?

Many of CEV's educators deny the possibility of serious frictions between them on the ground of two main factors: their increasing tendency to share and act on similar values (as shown by their strong ethical commitment), and habitual though sparse forms of collaboration traceable back to the early 2010s. The absence of open frictions and conflicts, however, is not sufficient to dismiss the tensions described in the previous chapter as marginal or irrelevant. Some clues strongly suggest that there are more differences than similarities between some of the educators.

In the first place, the findings of the previous chapter show that CEV's educators embody and perpetuate different approaches not only to education per se, but also to the ways in which the latter is intertwined with the development of the ecovillage. While some are more concerned with the ecovillage project in its entirety, others tend to be more focused on their individual activities. Some are more generalists, others essentially specialists. Some follow pedagogies similar to those applied in schools and universities, others are more radical and argue the primacy of "doing" over "talking".

Some tend to focus their teaching on the successes achieved, on what has really worked over the years; others think that exploring mistakes and failures, understanding them, and talking about them, is equally (if not more) relevant. One interviewee, in particular, has expressed his worries about the possibility that CEV might become just a "talking shop" more concerned with what has been achieved in the past than with what is currently being done to keep pushing the transition to sustainability.

Secondly, the asymmetries in collaboration and information sharing that emerge from Table 6.1 explain why – as some educators have acknowledged – there's not a full, mutual understanding of what everybody does at the educational level.

The lack of a shared notion of education for sustainability completes the picture. While Kenneth thinks that a common understanding is more likely to exist about facilitation, the Education Officer of VRE, Amy, has admitted that within CEV education for sustainability is still a concept "in the making":

> What is education for sustainability? That is probably a question we ask ourselves most of the time… And I don't think that anyone knows, here, what it is precisely. It's compelling that we have a lot of people coming over to know about it. Patricia would say that we are "living" that question.

"What is education for sustainability?" can (and probably should) remain an open question for an ecovillage which is, by definition, an experimental project. Yet, the goal of developing an alliance between educators makes necessary to consider the identities of the various educational practices at play in the ecovillage – and, thus, the general understandings (Schatzki, 2002) lying at their core. Any serious friction at this level would clearly represent a potential obstacle to the Learning Alliance, for it could diminish the chances for such practices to jointly express some commonality[65].

If the educators are "living" that question on education on a daily basis, then their practices should reveal something important about their tentative answers. On the basis of what observed in the previous chapter about CEV's educational actors

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[65] As explained in Chapter 2, the term "commonality" is used here not in a generic sense, but to refer to the duality practice/community theorized by Wenger (1998).

(individuals, organisations, groups, and enterprises), it is possible to identify a limited set of practices each of which is able to perform some degree of commonality.

Section 7.2 to 7.4 describe the central meanings attached to such practices, analyse their different levels of participation and reification, and describe their informative dimension. Section 7.5 focuses instead on identity formation (Wenger, 1998) and on what should be done to promote the engagement and alignment of the educators in the Learning Alliance. Finally, section 7.6 suggests some ways in which information in social practice (Cox, 2012) could back the development of the Alliance.

7.2 A leading centre for place-based education

The more formalized and "institutional" educational practice in CEV is carried out by VRE's members (seven in total as of April 2022), who regularly discuss ideas, plan, and organise activities in accordance to VRE's official principles and goals[66] (VERT, 2021). Not only are they mutually engaged and constitute a joint enterprise – the monthly meetings being the main occasion in which members discuss, negotiate their views, deliberate what to do, and hold each other accountable. They also share a repertoire including the physical place where formal meetings normally take place (the meeting room on the ground floor of the enterprise centre) and a wide set of documents, minutes, and other resources used to support, direct, and discipline discussion and decision making. These documents, stored and shared online, are accessible to all members, who can freely comment and make amendments on equal terms.

7.2.1 Education as "walking the talk"

The dominant meaning (why are we mutually engaged?) attached to this practice is making CEV a more and more distinguished educational hub for innovation and education on sustainability: in this regard, community building and place-based

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[66] See Chapter 6.

education are seen as the starting point of socio-technical and socio-economic innovation for sustainability.

This is the meaning informing not just VRE's programme but, more broadly, CEV's offering as an educational charity. Hence the centrality granted to collaborations with school, universities, and external researchers; the importance attributed to the tours of the ecovillage; and the very idea of developing a Learning Alliance where mutual engagement should become strong enough to overcome the differences existing between the various educational activities.

As "lived" by VRE's members, education for sustainability is emerging as a form of place-based education which some in the community define "walking the talk". Whilst in schools and academia people usually sit in a classroom and listen to a speaker with whom they may or may not interact ("talking the talk"), ecovillages grant learners the opportunity to walk around and see real-life examples of implemented solutions for sustainability. As observed by Cato (2014),

> If, as I have argued here and elsewhere (Cato 2012), learning about sustainability is an embedded and embodied process, a relational as much as educational matter, then its pedagogy must extend beyond the classroom or lecture theatre and into the field. The learning of sustainability can and must be, I would argue, a learning of the body as well as of the mind. (p. 23)

7.2.2 Imbalances between participation and reification

VRE's members' way of negotiating meaning seems more oriented towards reification than participation: the emphasis on formality, rules, and putting things in writing is often seen as the most effective way to address internal issues. The recent adoption of a "meeting etiquette" of rules and principles about how to speak and listen in a respectful manner might suggest the need to compensate for something amiss with participation. Although it is plausible that such imbalances could have been favoured by the shift to online meetings during the pandemic, there are at least two aspects to consider. Firstly, VRE is accountable to the board of directors as the "educational arm" of SPI, the educational charity governing CEV: its goals and needs must be constantly mediated with the limited resources available and the constraints of SPI's legal

responsibility. This can occasionally create tensions, and makes written rules very important. The second aspect to consider is that the majority of CEV's educators do not have a say within VRE – not because they have been intentionally excluded, but because of a complex set of circumstances (such as rules of membership, lack of time, and the issues of governance and organisation described in Chapter 5). Yet such a limited participation might weaken VRE's ability to fully grasp CEV's educational potential and limits.

This disparity between participation and reification can also create "discontinuities" in the negotiation of meaning: mutual engagement can be more difficult to maintain, relationships can demand more attention, and the joint enterprise tends to grow more formal by stressing reification as a way to promote alignment. All these tendencies can trigger latent tensions, as shown by the relational problems (like not being treated or heard as expected) openly discussed by some members of VRE during one of the last meetings I attended.

7.2.3 Putting in writing to inform

The ways in which information is sought and shared across this practice reflect the dynamics described above. It is a regular flow of emails, agendas, plans, minutes, and other shared documents to feed the negotiation of meaning in the first place. In other words, what is most informative to VRE's educational practice is what is put in writing with regard to the various activities and events planned and delivered throughout the year. ICT-mediated, reified information in social practice tends therefore to be dominant.

As it is being acted upon today within VRE, information in social practice doesn't serve properly the development of commonality, for it stresses reification over participation. This helps to understand why learning in practice is taking place more in terms of a shared repertoire (through documents, plans, minutes, etc.) and of a joint enterprise (through rule-based alignment and accountability) than in terms of mutual engagement.

7.3 Bringing people together to popularize systems thinking

In comparison with VRE, the educational practice carried out by Greenstar shows the ability to express a greater degree of commonality. This NGO, pre-existing the ecovillage project, has grown successfully for more than ten years outside of Cloughjordan, and when it moved from Temple Bar in Dublin to County Tipperary it had already developed a very precise identity and a specific core meaning: popularizing sustainability and systems thinking, and developing better understandings of how resilience and regenerative[67] approaches can be effectively implemented in the real world. As in the case of VRE, community building and place-based education represent the first step to spread socio-technical and socio-economic innovation.

During its years in Cloughjordan, this organisation has developed new collaborations and expanded its international network. Its educational work, together with the management of the enterprise centre, have offered tangible benefits to the local community and to the advancement of the CEV project. Although virtually everything (projects, collaborations, institutional counterparts, funding) has been re-thought to suit a very different location, the interests, passion, and goals that originally brought together the founders of Greenstar have not changed at all. Their mutual engagement is fuelled by friendship and confidence, their joint enterprise strengthened by a long-standing trust, whilst their shared repertoire is as rich as articulated: the library, the audio-video and printed educational materials published over two decades, the artefacts (like posters, pictures, and promotional content) preserved from previous courses and events, the enterprise centre.

7.3.1 A hybrid approach to education

Education for sustainability tends to emerge from this practice primarily as "walking the talk", but secondarily also as "talking the talk" and "talking the doing" – the latter being a critical discussion of the achievements and failures of what one is doing, and a

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[67] Permaculture-related.

view of learning as stemming from first-hand practical experience. While "walking the talk" tends to emphasize the results achieved in the past, "talking the doing" stresses what is being done in the present. The importance of a hybrid approach is apparent in the case of the permaculture design course, where these three pedagogies are combined: traditional lectures integrate more practical lessons where participation spans from observing a tangible solution implemented in the ecovillage to working on the ground. As explained by Nell, "in permaculture you start from the 'high level' [an overview of the project which must respect some fundamental principles], but until you do not get to the nuts and bolts you do not have a design: you only have a nice idea".

Yet, the central importance traditionally granted to "walking the talk" creates some overlaps between VRE's and Greenstar's respective educational offerings. Although the fact that Max participates in both entities should help to generate synergies and mutual benefits, such overlaps could also raise some tensions at two different levels. First, they could create some frictions between Greenstar and VRE – not only about which of the two should deliver certain types of education to certain audiences, but also because visitors and participants might confuse what delivered by Greenstar with what done by VRE (and vice versa). Second, the fact that both entities contribute to keep "walking the talk" at the core of CEV's offer might not be liked by those educators who prefer alternative approaches to education.

7.3.2 Participation as a foundational value

It is mostly thanks to Greenstar's long shared history of engagement between its founders and closest collaborators that the negotiation of meaning can play out in a smooth and quite balanced way. While reification is certainly relevant – the shared repertoire mentioned above, a rich educational offer, the online production and sharing of various documents, and so forth – participation is perhaps even more significant, and in at least two ways.

At the organisational level, it fuels a friendly environment where collaboration is key and the opportunities for informal encounters across the enterprise centre – both in

the kitchenette on the ground floor and in the offices on the first floor – are countless. With regard to Greenstar's audience, participation has become a foundational value ("bringing people together") as an essential way of spreading the key ideas of systems thinking to the mainstream.

7.3.3 Information supporting commonality

What is primarily informative to this practice is represented by a rich blend of participative and reified elements – occasional chats, meetings, events, emails, social networks, official documents, artefacts. Such elements are relevant to the extent to which they foster and support the ideation, organisation, and delivery of courses and events on the one hand, and the identification of new projects and collaborations on the other. Although during the pandemic the ICT-mediated forms of information in social practice have inevitably grown in terms of both participation and reification, a greater balance between in-person and mediated ways of exchanging information has been recently restored.

In general, it is fair to argue that information in social practice does support the ability of Greenstar's educational practice to perform a good degree of commonality. This is reflected by the fact that learning, as theorized by Wenger (1998), takes place at each of the three levels of mutual engagement (being and working together), joint enterprise (goal-led alignment and trust), and shared repertoire (lessons coming from a common history of achievements).

7.4 First-hand experience as the starting point of learning

Food for Life (FFL) and Raw Loaf, as shown in the previous chapter, are both for-profit enterprises carrying out very similar educational practices. Despite their social purpose – using organic food as a vehicle to spread more sustainable socio-economic models of production and distribution – their profit-based business model puts them at the

frontier between the social and the market economy[68]. It is because of this shared model that their educational role, quite different from those of VRE and Greenstar, is based on practices that (a) jointly perform commonality, and (b) are centred on "talking the doing" rather than "walking the talk".

7.4.1 Education as "talking the doing"

With regard to the first point, FFL and Raw Loaf are mutually engaged in a regular collaboration. The former supplies vegetables to the Bread School, which in return promotes Jordan's project; at the same time, the grains that FFL is growing on behalf of Raw Loaf offer new opportunities to experiment and learn more. They are aligned towards similar goals, and they can also rely on a shared repertoire of ideas and resources. Even more importantly, they feature a key aspect of CoPs (Wenger, 1998): a common history of learning. While reflecting on their close friendship, Tom and Jordan have recalled the many hours spent together, and how they have grown to "radicalize" each other.

With regard to the second point, "talking the doing" takes place locally (in the ecovillage) and globally (on social networks) by combining courses on baking bread and permaculture with the intensive use of Instagram and YouTube. In the case of Raw Loaf, "talking the doing" has two meanings. At a national scale, it aims to show that an alternative model of baking and selling bread can work effectively. As explained by Tom,

> in a country where electricity is mostly fossil fuel-based, we can demonstrate that running a woodfire bakery in a sustainable way is indeed possible – that one can create a livelihood on a non-fossil fuel system relying on locally-sourced energy. The people attending our classes can pick these ideas and bring them away.

Locally and internationally, "talking the doing" means instead exchanging ideas and tips, reflecting, and experimenting on baking bread and the many ways to make it better. As for FFL, "talking the doing" is primarily about producing videos for a global

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[68] See Chapter 1.

audience that document the achievements and failures of constantly experimenting with multiple techniques of growing organic vegetables.

The examples shown above indicate that the difference between "walking the talk" and "talking the doing" is more than just pedagogical. As explained by Jordan,

> The idea of labelling an area as "educational", and then building on it accordingly, is clearly concept-driven. On the contrary, clustering multiple activities around a given space, and then introducing educational activities and demonstrations on top of that is driven by doing.

In other words, the difference is also about the degree to which education in an ecovillage should be "formalized" as an activity on its own rather than stemming spontaneously from any existing practice relevant to the transition to sustainability.

According to the latter view, discourses and theorization count only to the extent to which they add something otherwise unintelligible to the learning experience (i.e., the explanation of how an experiment has been conducted). Although the Bread Club is a worthy service delivered to the community without any substantial economic return on the part of Raw Loaf, there's not much talk about its social purpose in the ecovillage. As explained by Tom and Patricia, "we have never explicitly addressed this purpose in terms of 'this is what we are trying to do'. They get to learn it because they live it".

Another example is offered by the veg-fridge[69], which has never been advertised. Some of the residents clearly benefit from its use, but only few people are fully aware of the broader social purpose behind this experiment. Yet this doesn't diminish what the community can learn from it about mutual support and a more meaningful and fair way to approach food and supply chains.

7.4.2 Information to improve technicality

In sum, the central meaning relatable to the practices carried out by FFL and Raw Loaf puts education for sustainability – as they both "live it" – on top of specific socio-technical and socio-economic practices representing an important starting point for

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[69] See Chapter 6.

community building. The negotiation of meaning through which such practices perform commonality tends to give more prominence to reification, but not in the same way in which this happens in VRE. The latter emphasises reification (mostly in the form of digital documents) to guarantee mutual accountability and the degree of formality expected from the "educational arm" of SPI. Raw Loaf and FFL intensively use reification (mostly in the form of digital messages and videos) to foster and nurture that kind of learning which is central to their businesses and social goals.

What is most informative to their practices comes directly from the empirical results of their own experimentations (using a new recipe to bake bread, growing a different type of grain, testing a new way of growing vegetables) and from the social networks and other technological tools they regularly use for their work. In its current form, information in social practice is supporting the commonality expressed by FFL's and Raw Loaf's educational practices only to a limited degree, for it is primarily concerned with the continuous improvement of techniques of baking bread and growing vegetables. The kind of participation it contributes to engender (people exchanging ideas about best practices to produce organic food) is somehow looser, but much broader, than that specifically required to develop CoPs (Wenger, 1998).

Given that Raw Loaf and FFL are distinct businesses, learning in practice (Wenger, 1998) is less evident in terms of joint enterprise and shared repertoire, but much more significant at the level of mutual engagement – through a close friendship and ongoing forms of collaboration.

7.5 Pathways and obstacles to the Learning Alliance

When it comes to considering the ability of a certain practice to perform commonality (Wenger, 1998), identity formation is as relevant as the negotiation of meaning, but in a different way.

The latter, more concerned with the present, allows to understand in the first place why the carriers of a practice are mutually engaged, and how they are learning together. Identity formation, more concerned with the past and the future, allows to

understand in the first place how such carriers have come to express some commonality over time – or how they could achieve to do even more so in the future. Hence the importance of power[70], one of the decisive factors to determine and change the meanings at the core of any practice. Power and meaning are always intertwined across time: without meaning, there wouldn't be anything to negotiate; without power, there would only be a set of non-negotiable meanings (Wenger, 1998). Since both dimensions are clearly essential to the development of the Learning Alliance (which pertains to the future, but needs to be founded on the understanding of the past), identity formation can be used to explore the concrete feasibility of this project.

Stemming from the interplay of identification (what are the meanings that matter?) and negotiability (to what degree can one make those meanings count?), identity formation relates to three different "modes of belonging" – imagination, engagement, alignment (Wenger, 1998) – that are also distinct ways of performing commonality.

By considering the central meanings attached to each of the major educational practices described above, and the degree of negotiability they entail, it is therefore possible to evaluate how such practices could perform commonality as a whole, and in relation to what modes of belonging such performance might prove to be more effective.

7.5.1 The double-edged sword of imagination

Imagination is a powerful double-edged sword in the sense that the "pictures of the world" it enables across space and time, and about both the past and the future (Wenger, 1998), can either unite or divide.

Ecovillages like CEV are great examples of the power to (re)imagine the future by bringing people together. As put by Max, "if it wasn't for the ten or so people who

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[70] Power as the ability to define competence (Wenger, 1998). "In the sense of directing and aligning energy (…) power (…) is a condition for the possibility of socially organised action" (Wenger, 1998, p. 180).

came together at the start and imagine a different place, all of this would have never happened". Yet, imagination is not just a factor of positive identification. By constantly playing "with participation and non-participation, inside and outside, the actual and the possible, the doable and the unreachable, the meaningful and the meaningless" (Wenger, 1998, p. 178), imagination can also generate tensions and disengagement.

With regard to the past, the findings of Chapters 5 and 6 clearly show that not all the educators look at it in the same way. Some see it as a good reason to celebrate (as in the case of the 20-year online anniversary) what has been achieved even in the most difficult circumstances: though important, failures should be left behind in favour of the successes achieved over the years. Other educators think instead that the mistakes of the past can be even more important than its achievements: without a sound, in-depth understanding of why certain things have not worked as expected, it is much easier to keep repeating the same mistakes over and over again.

It is mostly in this sense that imagining the future of CEV can be divisive as well. As long as what is deemed possible or impossible about the future is constrained by diverging ideas on how to best deal with the past, the commonality expressed on imagination is destined to remain weak. If one takes a look at how information in social practice is currently feeding the educators' imagination in the ecovillage, there's a stark difference between those who rely on ideas, theories, stories, visions, and creativity on the one hand, and those who consider empirical evidence and trial and error more informative on the other. The importance of this difference, rooted in the coexistence of two fundamental kinds of general understandings (Schatzki, 2002) behind CEV's educational practices, could hardly be overstated. As it clearly reflects the duality "walking the talk"/"talking the doing" – with its diverging ideas about education as an activity that stands on its own rather than being put on top of already existing practices – such a difference is central to virtually *anything* it is possible to learn in the ecovillage.

It follows that, for imagination to be truly relevant to the development of the Learning Alliance, negotiability among CEV's educators need to be more evenly distributed. As shown in Chapter 6, the fact that only few of them – those who are

members of VRE – are in the position to formally define the educational policies and goals of CEV makes their key meanings and approaches to education for sustainability much more influential at this level. It is clear that such an imbalance cannot coexist with the development of the Alliance.

This power asymmetry is not due to some disguised will to impose certain ideas over others – it is VRE, after all, to have launched the Learning Alliance project. Rather, it stems from the peculiar ways in which the educational practices have separately evolved over time in combination with the troubled organisational history of the ecovillage. Yet this doesn't diminish the importance of addressing the current problems of negotiability if solid foundations are to be laid for the Alliance.

7.5.2 Loose engagement

Looking at CEV's educators as a whole, their current engagement (that is to say, their involvement in the same process of meaning negotiation) is loose for the simple reason that they are part of separate practices with distinct features, objectives, and meanings.

They often praise each other, they relationships are friendly and they do share a common project – the ecovillage. At the same time, there are some overlaps whenever Jordan (FFL) and Patricia (Raw Loaf) agree to give some of the tours organised by VRE. Or when Greenstar and FFL come together with collaborators such as Sean, Nell, and Ned to deliver the annual permaculture course.

Yet direct interactions for common educational purposes remain quite sparse, and they never involve all the practices at the same time and for the same goals. The separation between such practices is evident also in the different ways in which they make use of CEV's physical spaces. Whilst Greenstar, Raw Loaf, and FFL can be identified with specific locations (the enterprise centre, the bakery, and the allotments) where most of what they do is centred, VRE's practices are more spread across the ecovillage. Always partial and often irregular, the current degree of engagement doesn't imply a rich informational dimension, which can be essentially narrowed down to occasional conversations, exchange of emails, and mutual promotion on social

platforms. At this level, the key issue behind scarce commonality is represented by the lack of meanings to negotiate in the first place.

To be successful, the Learning Alliance should therefore provide the educators with practice-related meanings they'd all be interested in negotiating. In other words, the Alliance cannot be a goal in itself: to foster engagement, it must offer concrete payoffs in the form of shared goals and mutual advantages.

7.5.3 The difficult balance between allegiance and compliance

As a dimension which pertains to the coordination of the energies, perspectives, and actions necessary to the pursuit of a common goal, alignment is always concerned with power because it often needs to strike a balance between allegiance and compliance (Wenger, 1998). While the former – founded on trust, inspiration, and motivation – can be an essential source of meaning for engagement, the latter implies the introduction of rules and procedures that constrain the actions and autonomy of participants (Wenger, 1998).

In the current context of CEV, where the degree of engagement between the totality of the educators is very limited, the development of the Learning Alliance should rely more on compliance than on allegiance to sustain alignment over time. In this sense, a good example that can be used as a sort of "benchmark" for the Alliance is Greenstar's permaculture design course.

This course brings together and coordinates most of CEV's educational activities towards a common purpose. While allegiance (mostly founded on the sharing of long-term friendships) does play a role, it is compliance to count the most in the end. Organisers, educators, and facilitators hold some meetings and exchange emails in order to agree on the contents to be delivered during the course and make all necessary arrangements. Since what really matters is delivering a top-notch course capable of matching the expectations generated by its growing popularity, compliance is fundamental. Back in 2020, for example, Greenstar introduced stricter rules to make sure, as explained by Paul, that "what is being taught during the course reflects

primarily the requirements of the course itself rather than the specific interests of the teacher". In the near future, some standards might be adopted as well.

The permaculture course's organisation is thus much closer to sub-contracting work and content aggregation than to the development of any sort of "alliance", where mutual learning and synergies should be much more prominent. Whenever compliance prevails over allegiance, as in this case, participation becomes subordinated to reification, and it is the written or verbal agreements on how to deliver education (rules and requirements) to represent the most informative aspects to the practices involved. While such an approach works well for the permaculture course, it would be clearly detrimental to the Learning Alliance, where participation is key. But for alignment to stem more from allegiance than from compliance, and thus express some significant commonality, at least two conditions need to be met. The first one is rebalancing negotiability among the educators, as argued in section 7.5.1. The second one is that the Alliance should cease to be a VRE's initiative to become a project actively embraced by all the educators: the risk of over-imposing a uniform view from the top for the sake of collaboration and coordination would be otherwise too high.

The Alliance should represent an ambitious endeavour that all the educators would be willing to discuss and develop together to improve their respective practices and learn from one another.

7.6 Harnessing information in social practice

As described above, the general understandings (Schatzki, 2002) behind the main educational practices of CEV confirm that the question "what is education for sustainability?" doesn't have a single, clear answer.

The educators are "living" this question in very different ways through practices that don't perform commonality to the same degree. This is not only about the coexistence of different pedagogies and goals: it's also about the nature and scope of the role that education should play in the ecovillage. Apart from Greenstar – the only case in which information significantly supports commonality in the sense defined by

Wenger (1998) – the current educational practices feature imbalances between participation and reification that, in different ways, constrain commonality. Information in social practice looks, in general, very heterogeneous: though in its current forms it reflects and reinforces imbalances and differences, there are some ways in which it might be harnessed to back the Alliance.

What discussed in the previous section indicates that (1) the ability of imagination to express commonality and foster both engagement and alignment is hampered by some relevant asymmetries in negotiability; (2) to build engagement, the Learning Alliance must provide meanings genuinely embraced by every single educator; (3) for alignment to be founded (primarily) on allegiance, the Alliance must be developed with the equal contribution of all the educators through a bottom-up approach: as long as this project is framed as a VRE's initiative, its chances of success will be scarce.

7.6.1 Opening the negotiation of meaning, fostering imagination

The first and the third points, both concerned with power distribution, can be addressed by opening the negotiation of meaning between CEV's educators: they should openly discuss not just the goals of the Alliance, its pros and cons, and the best way to build it, but also their respective views on education and how to make them work together in order to be as complementary and synergic as possible (what could these different approaches learn from each other?).

The findings of Chapter 6 indicate that there are higher degrees of negotiability between VRE and Greenstar (as well as between LLF and Raw Loaf) than between VRE/Greenstar on the one hand, and LLF/Raw Loaf on the other. Such asymmetries could be addressed through an in-depth revision of the decision-making processes on education at all levels. Yet, for this revision to be effective it would be necessary to involve all the educators and make sure that they get to fully understand (and acknowledge) the key meanings attached to every major educational practice taking

place in CEV. In such respect, information in social practice might be used to support and promote the development of this specific understanding.

The second point, pertaining to the meanings necessary to foster engagement in the Alliance, is primarily concerned with imagination as the most powerful vehicle for identification. Imagination is the lifeblood of intentional communities like CEV: without it, the Learning Alliance would fail for lack of engagement and poor allegiance. In this regard, information in social practice should help the educators to identify those specific meanings about the past and the future which would give them some solid motivation to engage in the Alliance.

In more concrete terms, what might be most informative to the educational practices as they become increasingly involved in the Alliance could be represented, for example, by (1) the shared histories of learning of CEV's educators (what lessons about past cases of participation and non-participation can be used to the benefit of the Alliance?); (2) the strengths and weaknesses of their previous collaborations on courses and events such as the permaculture design course and the Elements of Change festival; (3) the similarities, divergences, and complementarities already existing between the meanings at the core of such practices; and (4) any empirical source useful to understand in what terms CEV's current approaches to education could support and strengthen each other as synergic ways of learning: in this regard, it would be essential to test by trial and error new joint educational activities.

In conclusion, it should be stressed once again that meaning and power – the key dimensions of Wenger's (1998) CoPs theory – represent the two main dimensions along which the relevance of information in social practice to the development of the Learning Alliance should be assessed. To be significant at all for this project, information in social practice must have a concrete impact both in the short term (on the negotiation of meaning) and in the long period (on identity formation and, thus, on negotiability). A good starting point might be offered by the current fundamental connections existing between information and meaning across the principal educational practices (Table 7.1).

Table 7.1

Information and meaning across CEV's key educational practices

Main educational practices	Central meanings	Information in social practice
VRE	"Walking the talk": showing what has been done; focus on achievements. Making CEV a distinguished educational hub for innovation and education on sustainability. Education formally organised as an activity on its own. Social economy: social purpose, no profit.	What is formally put in writing about the activities and events planned and delivered throughout the year. Reified information prevails in the form of documents and emails.
Greenstar	"Walking the talk": showing what has been done; focus on achievements. Bringing people together to popularize systems thinking. Education formally organised as an activity on its own. Social economy: social purpose, no profit.	Occasional chats, meetings, events, emails, social networks, official documents, artefacts – and anything supporting (1) the ideation, organisation, and delivery of courses and events, and (2) the identification of new projects and collaborations. Balance between participative and reified information.
Raw Loaf & FFL	"Talking the doing": showing what is being done; focus on both achievements and failures. Relying on specific socio-technical and socio-economic practices to promote the transition to sustainability and support community building. Education stemming from existing practices (baking bread, growing vegetables). Market & Social economy: profit subordinated to social purposes.	Empirical results of direct experimentation; social networks and other technological tools. Reified information prevails in the form of messages and videos posted on social platforms.

Chapter 8

Discussion

8.1 Introduction

8.2 Findings and practice theory

8.3 Relevance of this study

8.4 Limitations

8.5 Conclusion

8.1 Introduction

The findings presented and discussed in the two previous chapters shed some light on the opportunities and challenges of the Learning Alliance, a long-term project launched in May 2021 by the Irish Ecovillage of Cloughjordan (CEV) to promote mutual learning and stronger synergies between its educators.

Stemming from the open acknowledgement of a scarce degree of collaboration and information sharing between such educators, this project is telling of the complexity of ecovillages, "living laboratories" (Litfin, 2013) where new ideas on sustainability can be developed, tested, and spread at multiple scales. On the one hand, the concentration of so many talents, competences, and skills in the same place generates a huge educational potential. On the other hand, such resources often need some autonomy to flourish, and their peculiar needs can easily clash with the will to align and coordinate multiple activities towards common goals – as already happened in the past with the processes and groups introduced to organise CEV.

The adoption of a practice-based view (Cox, 2012; Schatzki, 2002; Wenger, 1998) to address the problems raised by the Learning Alliance project has required to

do three fundamental things: (a) using CEV's main practices of education for sustainability as the entry point for exploration and analysis; (b) evaluating the extent to which these practices could jointly perform some commonality (Wenger, 1998) through the Alliance; (c) considering not only how the single educators deal with information (as a participative or reified element of practice), but also – at a distinct level – what is informative to the practices they carry out.

The results of this study indicate that the four main educational practices coexisting in CEV differ from one other in ways that go well beyond their practical understandings (Schatzki, 2002): first, they are founded on core meanings (Wenger, 1998) that, in some cases, diverge in substantial ways; second, they do not singularly express the same degree of commonality because of heterogenous levels of participation and reification. What stands out, in particular, is the coexistence of two distinct (and, to some extent, alternative) forms of general understandings (Schatzki, 2002): "walking the talk" and "talking the doing". This translates into very diverse modalities of information in social practice (Cox, 2012) that help to explain, together with sparse collaboration, the current lack of information sharing.

When it comes to considering the concrete feasibility of the Learning Alliance project, the differences in general understandings on education and the current asymmetries in negotiability between educators make imagination (how do we make both the past and the future meaningful to us?), engagement (why should we work together?), and alignment (how can we coordinate our practices to achieve some common goals?) more problematic.

While the negotiation of meaning between all the educators should promote various forms of participation to foster allegiance, negotiability should become more evenly distributed to make sure that all views are granted equal weight: both changes are required to effectively "open" the negotiation of meaning between educators.

Information in social practice should therefore be cultivated at each of the levels mentioned above – and across all educational practices – to foster the development of more converging understandings on education for sustainability.

While section 8.2 harks back the findings of this study to its theoretical framework, section 8.3 shows their relevance with respect to the literature reviewed in Chapter 3. The limitations of these results are finally addressed in section 8.4.

8.2 Findings and practice theory

The key notion that "practice is clearly a material affair; but it is also, inseparably, a matter of meanings, values, purposes and intentions" (Eagleton, 2011, p. 136) is mirrored by the results of this study in at least two ways.

In the first place, the four main educational practices of the ecovillage – as reconstructed through the conceptual framework provided by Schatzki (2002) – can operate and perpetuate or renew themselves as they do by virtue of a dynamic coherence between their material and non-material constitutive elements (notably, between their general and practical understandings). Without such inner coherence, constantly fed by information in social practice, these practices would quickly fall apart. In terms of sayings and doings, however, there's an important difference to point out: while the practices based on "walking the talk" (showing CEV's past achievements) can clearly tolerate some discrepancies between sayings and doings, the practices based on "talking the doing" can succeed only to the degree to which they are able to translate their discourses into action, and the latter can provide tangible inputs to the former.

Secondly, the different degrees of commonality performed by each of such practices couldn't be fully understood without considering their doings and meanings in combination. For example, the different levels of participation in VRE's and Greenstar's educational practices become much more intelligible once their respective goals are related to their sources of information in social practice.

As pointed out by Bradbury and Middlemiss (2015), Wenger's (1998) CoPs theory does provide a useful lens through which examining how grassroots associations learn to create sustainable communities. The fact of breaking down CEV's learning processes and analysing them in terms of meaning, community, practice, and identity

has indeed proved helpful to understand how the educational practices currently carried out in the ecovillage could be brought together to jointly perform commonality.

8.2.1 The true meaning of changing in practice

When it comes to identifying the challenges posed by the Learning Alliance, the practice-based perspective offers some important clues.

If they truly wish to learn from one another on a regular basis and develop significant synergies, the educators cannot simply reach an agreement and find some time for collaborating, for the Alliance is not just about "doing things together" (as the educators already do in some occasions). While Schatzki's (2002) framework suggests that long-established practices cannot easily overlap if they are founded on very different understandings, Wenger's (1998) CoPs theory indicates that such practices can jointly perform the kind of commonality needed by the Alliance only if they are able to negotiate their respective meanings on fairly equal grounds. Wenger's (1998) view unequivocally maintains that, though necessary, aggregating contents, sharing information, and coordinating activities cannot pave the way to a proper Alliance if meaning- and power-related issues aren't effectively addressed.

As argued by Giustini (2022), power is tied to the situated nature of practices because "it is the organisation of practices – competencies, materials, meanings, rules (Schatzki, 2002; Shove et al., 2012; Nicolini, 2012) – that coalesces in particular ways and shapes power before it is performed" (p. 14). Giustini (2022) points out that power manifests through the elements underpinning practices (general and practical understanding, teleo-affectivity, normativity, materiality): if these elements are left untouched, power relations cannot be significantly transformed. It follows that the gradual unfolding of a Learning Alliance would require some significant changes in CEV's educational practices – not only in how they are carried out, but also in the meanings and understandings behind them. It is mostly in this regard that practice theories are useful to offer a plausible interpretation of what is happening (and *not* happening) in CEV at the educational level.

On the one hand, they remind that material and non-material elements –
mutually influencing and equally relevant – must always go hand-in-hand for
transformation in practice to take place. On the other hand, Wenger's (1998) nuanced
approach provides significant keys to understand why identity formation – as deeply
rooted as it is in the continuous tension between meaning and power – can become
very subtle and ambivalent while featuring different degrees of participation and non-
participation.

When it comes to understanding how CEV's educational endeavour should
change in order to favour the development of the Alliance, CoPs theory (Wenger, 1998)
suggests to gradually open the negotiation of meaning between the educators to a
more direct confrontation on the very nature of education for sustainability – both *per
se* and in relation to the ecovillage. The emphasis on this process, implying stronger
participation and a greater balance in the distribution of negotiability, helps to frame
the Alliance in accordance with the organisational principles of the ecovillage – that is,
as a collaborative project which should stem from the direct involvement of all the
educators rather than being implemented, in any form, from the above. Hence the
great importance, highlighted in the previous chapter, of avoiding framing the Alliance
as an initiative of VRE.

In sum, the three levels of learning in practice (mutual engagement, joint
enterprise, shared repertoire) theorized by Wenger (1998) offer interesting insights into
how every major educational practice in CEV could contribute to the development of
the Alliance. Similarly, reasoning in terms of "modes of belonging" to a CoP (Wenger,
1998) – imagination, engagement, and alignment – is helpful to understand how such
practices should change to converge into a real covenant.

These analytical concepts do pose a risk: since they are meant to paint an
idealistic picture of a unified community, they might make certain issues less visible
whenever applied to identify existing CoPs: one could be led to look for what unites
rather than for what divides (Bradbury & Middlemiss, 2015). Yet this study clearly
indicates that, when it comes to reflecting on how a new CoP (the Learning Alliance)

could be developed, Wenger's (1998) theory can be also used in a different way: as a set of ideal benchmarks against which it is easier to identify potential problems and challenges – including those involving information.

8.2.2 Information sharing in light of information in social practice

As shown in the previous chapter, the notion of information in social practice (Cox, 2012) allows to shift the analytical focus from the ways in which the educators deal with information to what is primarily informative to the single educational practices. From a CoPs (Wenger, 1998) standpoint, the Alliance demands that such practices should be able to jointly perform commonality through the negotiation of meaning and identity formation. It is in relation to these two processes that information in social practice can be more insightful than information practices (focus on individual agency) to understand what is more informative to the building of the meanings and identities of participation required by the Alliance (focus on practice and commonality). Hence the great importance of relating information to imagination, engagement, and alignment (Wenger, 1998).

Though relevant to understand how CEV's educational practices are carried out, information sharing could turn out to be misleading if used to explain why the educators are not being as collaborative as they could be. Whilst a focus on individual agency often leads to seek "the" factor (the cause) that makes individuals behave in a certain way, practice theory suggests that poor collaboration on education might be in itself the *cause* – rather than the *consequence* – of sparse information sharing.

The coexistence of different general understandings (Schatzki, 2002) and the asymmetries in negotiability (Wenger, 1998) between educators do indicate that information sharing is ultimately weakened by the diverging processes of identity formation lying behind educational practices, and by their different ability to express commonality. When what is essentially informative to a certain practice is either marginal or irrelevant to another, information sharing between these two practices is unlikely to be relevant.

All in all, the notion of information in social practice (Cox, 2012) has proved effective as a conceptual tool linking the specific ways in which the single educators deal with information to the central meanings of their practices. Information in social practice decentralizes not only the individual as the entry point of analysis, but also information itself as the main object of practice: in other words, it sets aside the key assumptions of the information practice framework. By doing so, it certainly suits better CoPs theory's (Wenger, 1998) assumption that it is the negotiation of meaning, rather than the acquisition of information and skills, to be at the core of any learning experience.

8.3 Relevance of this study

This study represents the first in-depth exploration of CEV's educational activities and contributes to three main areas of research: collaboration, information in social practice, and education for sustainability.

8.3.1 Power asymmetries in collaboration

Though many of the obstacles to collaboration mentioned in the LIS literature – from bureaucratic procedures to heavy workloads and lack of resources (Jain, 2017; Nikiforos et al., 2020; Pham & Tanner, 2015; Tuamsuk & Nguyen, 2021) – are significant also for the Learning Alliance project, it is power asymmetries between people with different professional backgrounds to stand out in this study.

As argued by Pham and Tanner (2015), the huge challenges that such asymmetries pose to collaboration can be overcome only by working together and developing mutual understanding – a piece of advice which perfectly suits the Learning Alliance. Apart from building on minor achievements to support gradual changes (Pham & Tanner, 2014), what counts the most is – as stressed in the previous section – the adoption of bottom-up approaches meant to favour the emergence of spontaneous partnerships (Pham & Tanner, 2015).

As also pointed out about ecovillages by Mychajluk (2017), acknowledging and addressing power asymmetries seems therefore to be an important precondition for effective collaboration. This study explores such a precondition from the specific standpoint of a set of practices coming together to perform commonality on education for sustainability.

8.3.2 Bringing meaning and power to the core of the learning process

A concept which defies any straight definition (Ahmad & Huvila, 2019), information sharing is associated in the literature with several factors (information value, leadership, trust, personality, proximity, risk/benefit trade-off) that can affect it in different ways (Ahmad & Huvila, 2019; Cansoy, 2017; Kim & Roth, 2011; Pilerot, 2013; Wilson, 2010). The results of this study, however, strongly suggest that the existence of shared meanings can be essential for regular and effective information sharing to take place, both in-person and online. The kind of information sharing on education that really matters to CEV is relatable more to the natural converging of different "trajectories of learning" (Wenger, 1998) than to any formal activity planned at the organisational level.

The findings of this thesis back what argued by scholars such as Pham and Tanner (2015) or Ahmad and Huvila (2019): that information sharing, being always contextual and situational, cannot systematically be linked either to singled-out causes or to predetermined advantages and disadvantages. However, it is once again essential to remind that this study is not primarily concerned with the information practices of CEV's educators: its analytical focus is rather represented by information in social practice and its connection with learning as defined by Wenger (1998).

In this regard, the findings presented in Chapter 7 are not fully comparable with those of studies like Moring's (2011) and Mansour's (2020), which are centred on how information practices change over time as an effect of the negotiation of meaning (Wenger, 1998). While seeing such practices as part of a broader learning process is in line with the results of this study, understanding what kind of information can best support the development of CoPs has been its primary concern – more similarly to what

done (though with a greater attention paid to identity formation) by Lloyd and Olsson (2019).

This study contends that the adoption of a practice-based epistemology (practices as the entry point of analysis) helps to address the issues of meaning and power – both on their own and in relation to the role of information – in a more coherent and effective way.

8.3.3 Understanding the challenges of education for sustainability

The contribution of this research to the literature on sustainability and ecovillages is represented, for the most part, by the peculiar lessons that CEV can offer as a hub of socio-technical and socio-economic innovation.

As pointed out by Mychajluk (2017) and Litfin (2013), the type of learning engendered by ecovillages can be slow and all-consuming, but it is usually highly rewarding for their members, as well as very relevant for the spread of more sustainable models of production and consumption. This study backs this conclusion while offering more evidence to Mychajluk's (2017) arguments that power asymmetries can seriously affect ecovillages' sustainability-related practices, and that social competences are a pillar of their resilience and growth.

CEV is the living proof that, even when ecovillages can count on the most competent and skilled professionals, they can find themselves to face remarkable educational challenges. For all its limitations, this piece of research aims to add some layers of complexity to the understanding of such issues.

8.4 Limitations

This study cannot claim to represent an ethnography of the ecovillage of Cloughjordan. Focused on the group of the educators, my engagement with the local residents has been, all in all, quite limited. Though useful to concentrate my attention on educational issues, such a narrow focus might have biased the way in which this study portrays CEV's socio-cultural context and the tensions surrounding education in the community.

Besides my specific concerns as a researcher, however, any opportunity to interact with the broader community in the ecovillage was severely affected by the Covid-19 pandemic. Both aspects are examined below.

8.4.1 Theoretical issues

In general, any attempt to translate practices into words can be successful only in part because of their inherent complexity and of the tacit dimension they always entail (Nicolini, 2012). As Pilerot and Limberg (2011) put it,

> by carrying out an analysis, and thereby reducing complex factors into seemingly simple elements, one risks omitting irregularities, inconsistencies, uncertainties, et cetera, that, to a certain extent, underpin the dynamics of the site of the social. (p. 330)

CoPs theory (Wenger, 1998), in particular, entails a bold, detailed approach to learning in practice that can easily over-impose its perspective on what is being observed. As also acknowledged by Bradbury and Middlemiss (2015), its implementation might lead to overlook both learning processes that work outside its scope and problems that are not directly related to the elements on which this theory is centred.

It is also worth considering that Wenger's (1998) approach – for all its ability to provide a detailed account of learning processes (Bradbury & Middlemiss, 2015) – is not easy to operationalize. It takes time not only to grasp how its numerous concepts relate to each other, but also how to use them in a way (and with a language) that sounds not forced and comprehensible. Though I've done my best to make interpretations and explanations as plain as possible, I'm aware that there's a technicality to the terminology used here that might still represent an issue, especially when it comes to divulgating these results to a lay audience.

As for the concept of information in social practice (Cox, 2012), the fact that it seems to work well in combination with CoPs theory doesn't imply that it is able to fully overcome the problem of how to integrate a practice-based epistemology into LIS research. As acknowledged by Cox (2012) himself,

> The information profession, as custodians of the book – i.e. codified, cognitive knowledge – has a vested interest and symbolic place in an epistemic order that

privileges certain types of knowledge and learning over others, i.e. cognitive over embodied. (p. 184)

Foundational to the LIS field (Buckland, 2012; Wright, 2014), codified, cognitive knowledge – with its underlying representationalist view of the world (Taylor, 1995) – cannot smoothly accommodate the logic of practice theories. Though information in social practice can account for what is informative to a given practice (and to the commonality it might be able to express), considering how the single practitioners deal with information in practice (as seen in Chapter 6) always entail the risk of returning to behaviouristic or individualistic views.

Far from providing a definitive answer, then, the combination of information in social practice and CoPs theory (Wenger, 1998) is just an attempt in a new direction that needs further reflection and exploration.

8.4.2 The disruption of the pandemic

A huge challenge also at a personal level, the pandemic caused significant delays to my fieldwork schedule, and limited the quantity and quality of observations I could carry out directly on site. Apart from the permaculture design course, in which I was a full participant observer, I had to rely exclusively on the descriptions provided by the educators to depict significant portions of their work.

Furthermore, from September 2020 to the end of my fieldwork a year later, most educational activities and events did not take place at all, or were shifted in diminished forms online: some of them were suspended and never resumed, whilst others came back only after the end of my work of data collection. Although I forced myself to keep working on a regular basis and remained in touch with some educators online, for several months I lost the sense of place that only a physical presence can confer. When Ireland entered its third (and longest) period of lockdown, which spanned from late December 2020 to early May 2021, I started worrying about the concrete feasibility of my work – to the extent that during those months I seriously considered the adoption of some theoretical and methodological alternatives.

It goes without saying that all these factors have jeopardized my ability to render the richness of CEV's educational activities with the degree of detail and subtleness that a practice-based approach would normally require.

8.5 Conclusion

Even though, under more favourable circumstances, this could have been a more comprehensive and nuanced study, the data collected in the ecovillage have allowed to address the research questions in a (mostly) satisfactory way.

The results presented here found their validity on the inclusion of all the educators involved in the Learning Alliance project, on the in-depth analysis of their respective standpoints, and on the latter's constant comparison with the data collected from direct observation and a rich set of secondary sources. It is especially during the second phase of my fieldwork, when the Alliance project has come to the fore, that my approach to the different educators has acquired a solid consistency. Maintaining the kind of detachment that would be necessary under these circumstances (Coffey, 1999), however, hasn't been a simple task.

Throughout my fieldwork, I've often felt a certain tension – not just between me and the social world I was observing, but also between the theories and concepts I had brought with me and the reality of what I was trying to represent and interpret. The thin line between exploring and "invading", befriending and remaining detached, interpreting and judging, theorizing and distorting can be sometimes quite hard to detect, and it's a very easy one to cross. From data collection to analysis and representation, I've always tried to develop what Brewer (2000) identifies as the primary quality of a researcher: being close, but not too much, to the object of the study by preserving a sufficient balance between the status of insider and that of outsider.

I hope I've not failed this balance too often.

Conclusion

The birth of information theory came with its ruthless sacrifice of meaning – the very quality that gives information its value and its purpose.
James Gleick (2011)

By analysing the main educational practices taking place in the Irish Ecovillage of Cloughjordan (CEV), and how they could converge into a Learning Alliance to spread innovation for sustainability more effectively, this study shows how information in social practice could be used to address the Alliance's main challenges.

The key point, made in Chapter 7, is that information in social practice should be used to open the negotiation of meaning (Wenger, 1998) between all the educators in order for them to:

- become more mutually aware of the nature, characteristics, and purposes of their respective educational practices;
- clarify to each other the meanings which matter the most to them – including what they consider primarily informative to their work;
- acknowledge that such meanings entail differences that must be mutually accepted, understood, and – whenever necessary – negotiated;
- discuss freely and openly what works, and what doesn't work, across the various educational activities of CEV;
- identify common goals for CEV to which every educator could offer a personal contribution;
- share, implement, and test "on the ground" ideas, projects, and initiatives that could strengthen their engagement and alignment in the pursuit of such common goals.

Necessary to find some common ground on which fostering imagination, engagement, and allegiance, this opening process can work only if negotiability – the power to

define competence (Wenger, 1998) – becomes more evenly distributed among the educators.

For negotiability to be more symmetric and equitable, every educator should participate in any significant decision pertaining to CEV's education for sustainability, and this suggests that VRE's current way of working should somehow be changed if an Alliance is to be developed. Across the two dimensions of meaning and power, information in social practice can be relevant only to the extent to which it feeds the educators' evolving identities of participation – either by contributing to define the meanings they can attach to the Alliance, or by helping them to make negotiability more equitable.

It is *shared meanings on education negotiated on equal grounds*, rather than rules or some abstract intent to collaborate and learn together, which should constitute the very foundation of a bottom-up, collective endeavour to develop the Learning Alliance. And since the latter, from a CoPs theory's (Wenger, 1998) standpoint, should be seen as an educational practice performing commonality, its core meanings should be reflected by (and develop in accordance with) what the educators say and do about education in their everyday practices.

A summary of this study, and some reflections

At a time in which the impact of climate change and other environmental predicaments is becoming more and more visible (Mann, 2021; Masson-Delmotte, V. & IPCC, 2022), ecovillages show an educational potential that scholars have just started to grasp (Roysen & Cruz, 2020).

Not only can such communities be considered as "living laboratories" (Litfin, 2013) where new solutions on sustainability are developed and tested: they can also provide independent spaces for discussing new, radical ideas in a world where activism is being increasingly corporatized (Dauvergne & LeBaron, 2014). It is mostly in this sense that ecovillages, when compared with the still popular (but often disputed) notions of sustainable development and ecological modernisation, show an alternative

path. Whenever they operate as hubs of socio-economic and socio-technical innovation, ecovillages embody a locally-rooted view of sustainability to which everyday practices are central (Blewitt, 2006; Kothari & Arnall, 2019).

As routinized types of behaviour including a wide array of material and non-material interconnected elements, practices entail a holistic view of the world (Nicolini, 2012; Reckwitz, 2002) which is in line with two fundamental ideas lying behind CEV: systems thinking and permaculture. At the same time, the attention that some practice theories give to meaning and power as key drivers of social change suits well the need to better understand how ecovillages can embody and spread innovation for sustainability. The different ways in which people make sense of what they do together, and the power relations unfolding in practice between them, are indeed central ideas to the theories constituting the framework of this study: the structure of practice (Schatzki, 2002) and CoPs theory (Wenger, 1998).

Both theories have offered the key analytical concepts to address the research questions of this study: what are the main characteristics of CEV's practices of education for sustainability? How should such practices change to jointly express some commonality in an Alliance? How could information in social practice support this change?

Though the CoPs framework have become popular among LIS scholars primarily in its simplified, managerial, version (Wenger et al., 2002) – especially in the field of knowledge management (Su et al., 2012) – I've opted for the adoption of the original social theory of learning (Wenger, 1998) for two main reasons. In the first place, it is more suitable to the nature and goals of the Alliance project: developing commonality on education by sharing and learning together. Second, this is a framework sparsely used in the LIS field that only few studies have applied in its full articulation (that is to say, by considering both the negotiation of meaning and identity formation). I was therefore interested in testing its interpretive potential of learning as a social phenomenon within which the acquisition of information and skills is side-lined in favour of the negotiation of meaning (Wenger, 1998).

In this respect, Cox's (2012) concept of information in social practice has proved useful to explore two notions (information and practice) that have historically stemmed from very different epistemologies (Nicolini, 2012; Taylor, 1995; Wright, 2014). Cox's approach puts aside the notion of information practices (Savolainen, 2008) to look at what is informative to *any given* practice (and, thus, to the negotiation of meaning through which practices can express commonality). Such a goal explains why it wasn't possible for this study to simply describe how the single educators seek, use, and share information. An extensive description of CEV's practices of education for sustainability was required as well, and the qualitative methods traditionally associated with ethnography came to the fore as the most suitable choice.

The profound, long-term disruption brought by the Covid-19 pandemic has certainly hampered this study in terms of diminished opportunities for direct participation and observation. Yet the data gathered from the semi-structured interviews conducted with the educators, my field notes, an already rich literature existing on CEV, and a good deal of "ethnographic imagination" (Atkinson, 1990) have been sufficient enough to address the research questions in a mostly satisfactory way.

Thanks to Schatzki's (2002) framework, CEV's practices of education for sustainability have been depicted as rich and complex nexus of material resources, activities, discourses, and meanings contributing – each one in its own way – to the transition to sustainability. None of such practices could be fully understood without considering the ways in which they relate to each other and to the entire ecovillage. The latter's historical background, with its highs and lows, its successes and crises, has been particularly important to appreciate the scale and scope of what has been achieved at the educational level despite the many problems faced over the years.

By relying on the concepts drawn from CoPs theory (Wenger, 1998), I've also been able to break down the main learning processes occurring in practice and to analyse them in terms of meaning, commonality, and identity. Though I was expecting to find a remarkable concentration of knowledge and skills in an ecovillage born as an educational project, I was surprised by the coexistence of so many different (and

sometimes opposite) ideas and approaches about education. A clear advantage in terms of learning opportunities, such diversity becomes an issue when the goal is to combine these practices not by simply aggregating their respective contents, but by conflating them in an Alliance where meanings are widely shared and power relations are more equitable.

Whilst this study offers some advice tailored to the peculiar issues and goals of the Learning Alliance project, it also raises more general questions about how ecovillages can strike a balance between their need to cultivate multiple views and approaches to education and the importance of cultivating synergies to maximise their transformative impact on society.

Key contributions

As the very first in-depth exploration of CEV's educational activities for sustainability, this research adds to an already significant literature that, over the years, has explored different aspects of this community: organisation (Espinosa et al., 2011; Espinosa & Walker, 2013), human ecology (Campos, 2013), reflexive resilience (Moore et al., 2014), ICT-based information behaviour (McLoughlin, 2016), collaborative economy (Papadimitropoulos, 2018), urban planning (Rantz Mc Donald, 2019), and social sustainability (Collins O'Regan, 2020).

More in general, this study contributes to the growing literature on ecovillages and to sustainability transition studies in two principal ways.

On the one hand, it offers grassroots examples of how education and socio-economic/technical innovation can be successfully combined and spread at multiple scales – even when the resources available to do so are very limited.

On the other hand, it addresses a problem which might be common to many ecovillages (how to make their educational efforts more impactful) by linking meaning and power to learning, and by showing how the intertwining of information and practice can reflect this relationship.

Though not always easy to operationalize, the combination of Schatzki's (2002), Wenger's (1998), and Cox's (2012) theoretical frameworks has proved sufficiently cohesive and effective to analyse problems similar to those addressed, in the LIS literature, by scholars such as Moring (2011, 2017), Lloyd and Olsson (2019), and Mansour (2020). Yet it is essential to notice that, whilst those studies keep their analytical focus on information-centred practices (variously combined with the negotiation of meaning and identity formation), this work has attempted something different: adding to a descriptive level concerned with how the single practitioners deal with information a second, more analytical, level where the main goal is to understand what is informative to each practice, and how it can affect the latter's ability to perform commonality.

This study maintains that it is at such level that linking information to issues of learning, meaning, and power (as theorized by Wenger, 1998) becomes easier and more effective. To my knowledge, very few attempts of this kind have been made so far in the LIS literature.

Final recommendations

Despite the popularity gained over the years by the managerial version of CoPs theory (Wenger et al., 2002), LIS scholars should not overlook the analytical and interpretive potential of the original social theory of learning that Wenger (1998) proposed by elaborating on the idea of legitimate peripheral participation (Lave & Wenger, 1991).

Further research is needed to test in different contexts CoPs theory's (Wenger, 1998) ability to show how information in social practice can either support or hamper the development of commonality in terms of meaning (why should we engage with one another?) and power (how can we align on equal grounds to achieve common goals?).

In the specific case of ecovillages, it would be also necessary to understand in more detail how they can use information in social practice to strike a balance between the need to foster a plurality of views, values, and approaches to education and the fundamental objective to maximise their transformative impact on society at multiple

scales. To this purpose, it could be useful to compare the findings of this research with those of similar studies conducted in other ecovillages around the world.

It is important to clarify that the concept of information in social practice (Cox, 2012) is not suggested here as the only viable way of approaching information within CoPs (Wenger, 1998). In the first place, it is seen as complementary to the notions of information behaviour and information practice because it mostly addresses different issues and works at a different analytical level. Secondly, it might be possible to identify other practice-based approaches to information that are even more effective than Cox's (2012).

By taking this possibility into account, future studies in the LIS field should seek new ways of combining information and practice – with and without the support of ICTs – to address the never-ending challenges of education and learning.

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Appendix I

Source: www.cloughjordan.ie

Appendix II

School of
Information and
Communication Studies

**Education for sustainability through
communities of practice. Information,
meaning, identity, and the building of a
"Learning Alliance" in the
Irish Ecovillage of Cloughjordan**

PhD Candidate: Andrea Muzzarelli

Informed consent for semi-structured, open-ended interviews
(EU Commission - Ethics for Social Science and Humanities research - GDPR - UCD ethics guidelines)

Introductory Statement

This study aims to explore the practice of education for sustainability based in the Ecovillage of Cloughjordan with the main purpose of offering new insights and advice on how to foster the development of a more cohesive community of practice centred on education.

With a focus on the local implementation of the "Learning Alliance" project, the following research questions are being addressed:

1. What are the key features of the practice of education for sustainability taking place in the ecovillage of Cloughjordan?
2. How is information being used and shared from a practice perspective?
3. How, and to what extent, are educators learning together?

Data processing

The interviews will be recorded and transcribed. The resulting text will be qualitatively analysed according to the purpose of the study.

The data will be safely stored (paper documents will be stored in a locked physical drawer, digital or electronic data will be stored in an external hard drive and encrypted).

Data will be deleted after the end of the PhD project.

Data will not be shared or transferred to third parties under any circumstances.

As research participants, you have the right to withdraw from the study at any time, you are entitled to access, edit or delete data through contacting the data controller.

Data controller and processor: Andrea Muzzarelli / andrea.muzzarelli@ucdconnect.ie
DPO contact details: Office of the DPO, Roebuck Castle, University College Dublin, Belfield, Dublin 4, Ireland, Email: gdpr@ucd.ie

Confidentiality Agreement

You have been contacted because of your role in the research field through publicly available email address. The interview process might stimulate the sharing of personal information or opinions, which might be irrelevant for the study, but will fall under a mutual confidentiality agreement between the researcher and the research participant.

To ensure confidentiality and the right to restrict data processing, research participants can opt, if they wish, for one or both of the following:

1.   Data anonymization. In this case, any identifier will be removed, and only general information will be retained.

2.   Transcription revision. In this case, the text file will be sent to the participant who will have the opportunity to revise the text within 10 days.

DECLARATION

- I …………………………………… voluntarily agree to participate in this research study.

- I understand that even if I agree to participate now, I can withdraw at any time or refuse to answer any question without any consequences of any kind.

- I understand that I can withdraw permission to use data from my interview within two weeks after the interview, in which case the material will be deleted.

- I have had the purpose and nature of the study explained to me in writing and I have had the opportunity to ask questions about the study.

- I understand that participation involves being asked a few questions about my sociocultural background, my reasons for joining the ecovillage and/or my direct or indirect involvement in its educational projects and activities.

- I understand that I will not benefit directly from participating in this research.

- I understand that all information I provide for this study will be treated confidentially.

- I understand that in any report on the results of this research my identity will remain anonymous unless a different agreement has been reached. This will be done by changing my name and disguising any details of my interview which may reveal my identity or the identity of people I speak about.

- I understand that disguised extracts from my interview may be quoted in my PhD dissertation, conference presentations and published papers.

- I understand that signed consent forms and original audio recordings will be saved and safely stored by using both the services provided by the researcher's UCD account and a password-protected personal laptop. Data will be accessible only to the researcher himself and his supervisor, Dr Lai Ma.

- I understand that under freedom of information legalisation I am entitled to access the information I have provided at any time while it is in storage as specified above.

- I understand that I am free to contact any of the people involved in the research to seek further clarification and information.

- I hereby give permission for the use of the data collected from me using the following methods only (please tick the relevant box or boxes you are agreeing to):

  All data collected from me: ☐   De-identified data only: ☐
  Recorded Interview (audio): ☐   Film/Video/DVD: ☐

- I would like to receive the transcript of the interviews which will be revised and sent back to the principal investigator within 15 days: ☐

_____ _____   _____ _____
Signature of participant   Date   Signature of researcher   Date