The Illumination of Money

An Ethnography of Bitcoin in El Salvador

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Abstract

Money can be understood as a disembedding mechanism, detaching social relations from a spatiotemporal context. However, different infrastructural instantiations of money make visible–and invisible–different qualities of money. Through a two-month ethnographic study of El Salvador's adoption of Bitcoin as a complimentary legal tender, I show how Bitcoin in El Salvador functions as a technology of the imagination that brings future-making and deterritorialization into the forefront of money infrastructure(s).

The thesis is divided into three main parts. First, I briefly introduce how people leverage Bitcoin as a tool for shaping subjective attitudes towards time, and consequently–to inspire hope.

Then, I show how foreigners travelling to El Salvador to use Bitcoin are not doing this out of economic considerations. Rather, this transnational group of Bitcoiners can be characterised as a recursive public that utilises Bitcoin to escape the formation of the nation-state and form a deterritorialized community around shared speculative visions of the future. Bitcoin also allows them to make general infrastructural features of money visible and to contest these. The prime example being money's disciplinary effects on subjective attitudes towards time.

In the last part, I show how deterritorialization and speculative futures also come to the forefront of *Salvadoran* imaginaries of Bitcoin. We can understand attitudes of fear and attitudes of hope as responses to this imaginary. The thesis concludes by arguing that Bitcoin's materiality affords imaginaries of disembedded social landscapes, thus rendering visible preexisting infrastructural features of money. However, in the specific context of El Salvador Bitcoin also works as a tool for re-embedding, but only for the Bitcoiners.

Acknowledgements:

Glossary:

Bitcoin: A decentralised digital currency that operates on a peer-to-peer network, allowing users to send and receive payments without the need for intermediaries like banks. It is based on blockchain technology, ensuring transparency, security, and limited supply.

Blockchain: The blockchain is a public record of Bitcoin transactions in chronological order. The blockchain is shared between all Bitcoin users. It is used to verify the permanence of Bitcoin transactions and to prevent double spending.

Lightning Network: The Bitcoin Lightning Network is a second-layer protocol built on top of the Bitcoin blockchain that enables faster and cheaper transactions by facilitating off-chain payment channels between users.

Shitcoiners: a derogatory term used to refer to individuals who invest in or promote cryptocurrencies considered to be of low quality or lacking genuine value.

Fiat money: Traditional government-issued currencies, such as the US dollar or the euro, that are not backed by a physical commodity like gold and rely on trust and government regulation for value.

Commodity money: a form of currency that has intrinsic value based on a physical commodity, such as gold or silver, rather than relying solely on government decree.

Debasement: The deliberate lowering of the value or purity of a currency, often through the reduction of precious metal content, leading to inflation and loss of purchasing power.

Lowering time-preferences: Psychological shift towards valuing long-term benefits and delayed gratification over immediate desires and short-term gains.

Illumination: The act or process of lighting up or illuminating something. In Christianity, illumination refers to the divine process of spiritual enlightenment and understanding through the guidance of the Holy Spirit. Illuminated Bibles are meticulously crafted manuscripts adorned with the application of gold or silver, requiring substantial investment of resources, including hours of skilled labour, and resulting in works of significant material worth and cultural significance

(red dots L-R) (1) Lake Atítlan, Bitcoin Lago, Guatemala, (2) El Zonte, (3) San Salvador

(red) (1) El Zonte (2) San Blas (3) San Salvador (4) Isla La Pirraya
(blue) (1) Ilopango (2) Suchitoto (3) Berlin Bitcoin Mining facility (4) Conchagua, La Unión

(red) (1) Chiltiupán (2) El Zonte (3) San Blas

Contents

1. Introduction

It is 2021; I am in Amsterdam interviewing Mikael–a man who doesn't want to take the Covid-19 vaccine. He tells me about Big Pharma, government-controlled media and Covid-19 surveillance infrastructures. He is preparing to go to a small surf town called 'Bitcoin Beach', in El Salvador. El Salvador has scrapped all their vaccination requirements and adopted Bitcoin as a national currency. 'The future is over there', Mikael tells me.

One year later, I am taking a taxi from El Salvador's International Airport to El Zonte, a beachside town with a population of 3000 people. Upon arriving in El Zonte–Bitcoin Beach–we can't find the address that I am staying at. In fact, we can't find any addresses. Carolina, the taxi driver, is becoming visibly nervous. Should I be nervous too? It is my first time in El Salvador and about half of the things I have heard about this place have been about criminal violence. I fear Carolina will abandon me here on the pitch-black roadside and I will have to walk around with a big suitcase and a lost gaze. Determined, Carolina keeps driving in circles around this small town and its dead empty streets. Meanwhile, I am making insincere suggestions that maybe I can just get out and find my own way. I stop worrying about myself and start worrying about the car when Carolina takes us up a road made up of hardened mud and big rocks. She stops outside of a chicken coop fence. This can't be the right place I think; but it is.

This means that it's time for me to make my very first Bitcoin payment. Carolina shows me a QR code on her phone and I open the Bitcoin application on my phone to scan it. It doesn't work. She looks at my phone and tells me I have the wrong application. I excuse myself and start downloading a new application while Carolina waits impatiently. I have to transfer the money from the first app to the second, doing so costs a significant amount of fees. I do it anyway. Nothing happens. I show the application to Carolina and she looks at it dumbfounded. She asks me if I have cash. I don't. I ask her if she accepts a credit card. She looks at me puzzled. The foreign sound of Cicadas jolts my brain and I remember that's the whole point with Bitcoin; informal entrepreneurs don't have access to POS-systems. Carolina writes her phone number on a note and tells me I can pay her later.

1.1 Historical Background

1.1.1 Adopting Bitcoin

On the fifth of June, 2021, Jack Mallers is struggling to hold back his tears at the stage of a Bitcoin conference in Miami (Bitcoin Magazine 2021). The 27-year-old CEO is telling the crowd about how his company, Strike, is bringing financial inclusion to those that lack access to basic financial services. He has spent three months in El Salvador, and has now seen the perils of a country in which 70% lack access to such services. Mallers tells the crowd that remittances sent from abroad constitute about a fifth of El Salvador's GDP, and the companies that facilitate the transfer of these sometimes take up to 50% in fees.[1] He bursts into tears as he says that Strike can lower those fees to zero, allowing the remittances to be sent through Bitcoin instead.[2] But this is not the climax of his presentation, Mallers has got a message from the president of El Salvador. In a pre-recorded video, Nayib Bukele presents to the Miami crowd that El Salvador will become the first country in the world to make Bitcoin legal tender.

This is the first that anyone hears of it. Just two days after Bukele's speech, the legislative assembly swiftly passes the Bitcoin law in a five-hour session. As Vázquez (2022) points out: "[the] haste to adopt Bitcoin outdid the eight-day legislative approval period after President Francisco Flores's declaration that El Salvador's economy would dollarize in 2001."[3] The three-page document that is the Bitcoin law declares that Bitcoin will be legal tender alongside the US dollar. Vendors and service providers are required to accept Bitcoin, except for those who lack the necessary technology, and all Bitcoin earnings will be exempt from capital gains tax.

The adoption of Bitcoin in El Salvador has faced widespread criticism. The price of Bitcoin relative to US dollars is volatile (Baur & Dimpfl 2021), because of this, commentators criticise it as gambling with taxpayers' money (O'Grady 2021; Kurmanaev et al. 2021). Since El Salvador adopted it, the price has dropped significantly, meaning that the public money spent on buying Bitcoin is currently worth a lot less. In June 2022, the 100 million dollars that the government spent on buying Bitcoin was worth roughly half as much (Tidy 2022). Critics have also focused on problems with adoption in El Salvador. Chivo—the government Bitcoin wallet provider in El Salvador—had a terrible launch. It suffered from a great number of bugs (Renteria & Esposito

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[1] This number is far from representative. In 2020 the average transaction cost of sending remittances to El Salvador was 2.85% (World Bank Open Data 2020)

[2] While transferring Bitcoin through Strike is free, converting Bitcoin to US dollars and back comes with a cost, you also still need to pay routing fees (if you are transferring with lightning) or 'mining' fees if you are doing an on-chain transaction.

[3] Usually other countries (like Ecuador who dollarised the year before El Salvador) adopts the dollar as a last resort in the face of uncontrollable inflation. However, El Savador did not have problematic inflation prior to the dollarisation (Towers and Borzutzky 2004: 37-38). Towers and Borzutzky (2004) argue that the decision to dollarise reflected the interests of the financial elite in the country but affected the poor population of El Salvador negatively. For them, the result was decreases in purchasing power (ibid: 47-48), information disparity (ibid: 46-47) and psychological stress (ibid: 49-51).

2021) and was vulnerable to theft (McDonald 2021). In a commentary on El Salvador's Bitcoin adoption, the Latin America scholar Eric Vásquez, argues that Bukele's decision to make Bitcoin legal tender "marks poor and working Salvadorans as guinea pigs, not protagonists, of his macroeconomic financial experiment." (2022:600). Most Salvadoran people did not know what Bitcoin was before the decision (Linares 2021) and the announcement of the Bitcoin law sparked a protest of over 1000 people marching in San Salvador, vandalising a Chivo Bitcoin ATM (BBC News 2021)

The protest was not just about Bitcoin, it was about Bukele's policies in general. Simultaneously as introducing Bitcoin, Nayib Bukele's policies have sparked fears that El Salvador is gradually slipping into authoritarianism. Bukele has announced that he will run for reelection even though constitutional law in El Salvador prohibits this (Al Jazeera 2022). Or, used to prohibit–before Bukele pushed Congress to change it (Renteria 2021a; 2021b). Before this, Bukele swarmed Congress with the military in a display of force. He did this because of hesitation to provide financial support for his plan to crack down on criminal violence (Agren 2020). Some argue that Bukele is also cracking down on free speech (Kinosian 2022). Independent investigators found that an operator in El Salvador had installed Pegasus spyware on the phones of government-critical journalists in El Salvador (Scott-Railton et al., 2022).

Still, Nayib Bukele remains one of the most popular leaders in the world. His approval ratings hover around 80-90 per cent in opinion polls.[4][5] Nearly 70% of Salvadorans say they would support him in serving a constitution-breaking consecutive term (Renteria 2023).

1.1.2 Bitcoin Beach, El Zonte

Some years before all this, the US missionary and surfer Mike Peterson was seeking more funding for Hope House: the youth charity project that he runs together with Jorge Valenzuela in the small Salvadoran beach town, El Zonte. The following turn of events is unclear. But at one point, Mike Peterson came into contact with the assistant of an anonymous Bitcoin philanthropist in the US, who was eager to donate Bitcoin to projects furthering the real-life deployment of the digital currency. So, Peterson wrote up a project proposal for a small-scale, 'circular Bitcoin economy'. The proposal was very much versed in the same language of financial inclusion that Jack Mallers would use in his Miami presentation.[6] The anonymous donor liked the proposal and gave Hope House an undisclosed amount of Bitcoin to develop a circular Bitcoin economy.

This is the patchy story of how El Zonte came to be known as Bitcoin Beach. It is described by my interlocutors as 'the place with the most documentaries per capita' and the place is an important symbol for El Salvador's Bitcoin adoption. The town is visibly poor: there's a lot of

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[4] See Wikipedia (2023) for an overview of different opinion polls:
https://en.wikipedia.org/wiki/Opinion_polling_on_the_Nayib_Bukele_presidency
[5] If this figure seems extremely high, one should perhaps take a look at the polling of previous presidents, who have also received rather high rates of approval.
[6] See BUBBLEs paper, Peterson (2022)

informal housing and a lack of functioning roads. Much of the international media coverage of 'Bitcoin Beach' uses the rural backdrop of El Zonte as some sort of narrative contrast to the futuristic associations of Bitcoin.[7] However, journalists visiting Bitcoin Beach have also shown how the image of El Zonte as the first circular economy on Bitcoin is contradicted by what they see on the ground (Taylor 2022; Brigida & Schwartz 2022). Salvadorans have been reluctant to accept Bitcoin because of bugs with the digital wallet technology, the volatile nature of the currency and lack of access (Alvarez et al. 2022).

Tourism is not a new phenomenon in El Zonte, which has long been famous for its reliable waves. My interlocutors tell me that a few foreigners have been coming there to surf since the 70s, although tourism really took off in the 2000s. Since it became Bitcoin Beach however, El Zonte has seen a new crowd of visitors come: Bitcoin enthusiasts.

Bitcoin Beach sometimes alludes to Hope House's Bitcoin project, sometimes it alludes to certain spheres of El Zonte and sometimes people use it as a description of El Zonte as a place (or resist it as a description). Sometimes, it alluded to a more general idea. There's a Bitcoin Beach in Brazil, Bitcoin Lake in Guatemala, Bitcoin Jungle in Costa Rica, Bitcoin Ekasi in South Africa and Bitcoin Island in the Philippines.[8] These franchises are encouraged by the founders of the original project: a panel was held at the Adopting Bitcoin conference called 'Let a Thousand Bitcoin Beaches Bloom'. In this panel, Mike Peterson held a presentation of a whitepaper called "Basis Underlying Bitcoin Beach-Like Efforts (BUBBLEs)" (Peterson 2022).

1.2 Aims and research question

There's plenty of previous research on Bitcoin and digital currencies. However, few people have studied the everyday usage of digital currencies like Bitcoin in a geographically bounded space. Even though El Zonte is not the circular Bitcoin economy that the Bitcoin Beach project leaders claim it to be, there are still some people there that use Bitcoin as a day-to-day currency. Bitcoin is generally classified as a virtual currency but in El Salvador its legal status excludes it from how the EU defines a virtual currency (EU Directive 2018/843[9]). This points to how, in El Salvador, Bitcoin acquires different meanings. Rather than regarding money technology as being culturally stable, I am grappling with how Bitcoin is understood in the local context in which it is used. Bitcoin Beach in El Salvador is a unique field site to study this. However, because Bitcoin Beach is both bigger and smaller than El Zonte (see previous section) I allow Bitcoin Beach to emerge from bottom-up

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[7] Most of the information in this section comes from interviews with Hope House personnel as well as the people that lived in El Zonte. I managed to find little archival historical material on El Zonte. The mayor of Chiltiupan told me that many of their archives had been destroyed during the civil war.

[8] Albeit, different from these projects we might also include a talk about the Bitcoinization of Roatan Island in Honduras and the connected talk of the Bitcoin positive private city 'Prospéra', on the same island.

[9] The Directive defines the term "virtual currencies" as: "a digital representation of value that is not issued or guaranteed by a central bank or a public authority, is not necessarily attached to a legally established currency and **does not possess a legal status of currency or money**, but is accepted by natural or legal persons as a means of exchange and which can be transferred, stored and traded electronically" [my emphasis]

observations and approach it in a manner similar to actor-network theory (Latour 2005).[10] What Bitcoin is–and what Bitcoin Beach is– is defined empirically, by observing discourse and practice 'on the ground'.[11] Doing this took me to several field sites in El Salvador to explore the very vague question:

What spatiotemporal imaginaries does Bitcoin afford in El Salvador?

Whose imaginaries? Well, I briefly described how Bitcoin Beach made up the central node for my fieldwork and it should be emphasised that much of the social activities relevant to Bitcoin were dominated by foreigners. The answer to my research question is not meant to be generalisable to El Salvador. The people I study inhabit a social space delimited around Bitcoin interaction.[12] However, because of El Zonte's status as Bitcoin Beach, this also includes non-Bitcoin using locals in El Zonte.

How can you study imaginaries? Well, In El Salvador, Bitcoin is a technological infrastructure that hasn't received closure (Bijker and Pinch 1984): it has not yet reached a blackboxed state. This offers a unique momentary glimpse of how spatiotemporal imaginaries of money infrastructures manifest in *practice* and *discourse* surrounding an emerging money infrastructure. The ambiguity of my research question helps me explore what practical engagements with Bitcoin–of both foreign Bitcoin enthusiasts travelling to El Salvador and local Salvadorans–bring into the fore.[13]

My research question is better specified with the following sub-questions (corresponding to the three sections in chapter 1.4):
- What infrastructural features of money do my interlocutors' practical engagement with Bitcoin make visible?
- What practices constitute transnational Bitcoiners as a community and how does this relate to money infrastructures in general?
- How (and by which of) my interlocutors is Bitcoin employed as a technology of the imagination to orient attitudes toward the future?

Again, I do not aim to investigate Bitcoin or other cryptocurrencies in a general sense, but rather focus on how it is embedded in Bitcoin Beach. However, this does not mean that the findings in this thesis are inapplicable to a more general field. At the time of writing, there are no other

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[10] I understand Bitcoin Beach as being a central node in a network of "interacting human, organizational and artifactual entities and practices" (Hakken 1999:23).

[11] Allowing 'Bitcoin Beach' to emerge from bottom-up observations – rather than adhering to a presupposed definition – took me to other geographical sites than El Zonte: San Salvador, San Blas, Isla La Pirraya and Panajachel in Guatemala. More about this will be said in the next section.

[12] For much of El Salvador Bitcoin simply doesn't matter that much, it isn't present. The vague spatial boundary of Bitcoin Beach allows me to look at a 'social space' rather than a predefined geographical space.

[13] More about this will be said in the method section.

ethnographies of Bitcoin in El Salvador.[14] As one of the few examples of Bitcoin usage in everyday practice and nationwide legalisation of cryptocurrency, this ethnography brings nuance to whether new financial technologies can further financial inclusion, and what type of financial inclusion is desirable (Maurer et al. 2019).[15] I situate my thesis within the following fields: (1) studies of infrastructure, (2) economic anthropology, (3) globalisation studies, and (4) anthropology of the future.

1.3 Structure of Thesis

This thesis comprises five chapters. In this first chapter, I have so far presented a brief contextualisation of my field and the aim of my study. In the ensuing part, I will through previous research and theoretical considerations show (1) how Bitcoin can render visible pre-existing features of money, (2) how we can approach the Bitcoin community anthropologically and (3) how Bitcoin relates to speculative ideas about the future. I will finish this section by describing my methodological considerations.

In Chapter 2, Hope House, I give a further introduction to my field by describing the Hope House project and El Zonte. The ethnography in this chapter serves as a primer to ideas that will be brought up in the following chapters, especially in chapters 4-5.

In Chapter 3, The Bitcoiners, I introduce the reader to foreign Bitcoiners. Through ethnographic accounts I give a description of their daily lives, how they relate to Bitcoin Beach and the imaginaries they have of Bitcoin. I argue that paying with Bitcoin is also a speculative practice and as such, speculating with Bitcoin and paying with Bitcoin is reinforcing, rather than at odds. I do this by showing how the future of Bitcoin depends on the sociality produced by payment practices.

In Chapter 4, Bitcoin in El Salvador, I leave the foreign Bitcoiners to concentrate on my Salvadoran interlocutors. Through the personal history of one of my interlocutors, the reader is given further historical background of El Salvador and is shown how this history relates to Salvadoran imaginaries of Bitcoin. I return to some of the issues taken up in Chapter 2 and delineate hopes and worries in connection to globalising tensions of Bitcoin Beach. In doing so, I bring up disparate responses to Bitcoin Beach in relation to El Salvador's past.

In Chapter 5, Conclusions, I reiterate some analyses brought up throughout the thesis and describe how different interlocutors attract different meanings to Bitcoin but that for both, Bitcoin illuminates disembedding qualities of money. I offer a conclusion that Bitcoin has unequally afforded capacities to aspire, contingent on historical and contextual factors. Last, I suggest that in the particular case of El Salvador, Bitcoin is also re-embedding, but only for those that are part of the Bitcoin community.

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[14] There have been opinion polls by IUDOP and a major door-to-door survey (Alvarez et al 2022). See Appendix 2 for an overview of how many people use Bitcoin in El Salvador and people's general attitudes towards Bitcoin.
[15] This question has recently been given attention in three contributions to a volume edited by Maurer et al. (2019:19-86)

As the attentive reader might have noticed, I have attached a generous amount of footnotes to this thesis. This has been done due to space limitations. Several of the reader's questions might be answered by looking at these.

1.4 Previous Research and Theoretical Framework[16]

1.4.1 Money infrastructures

Money is mediated credit-debt relationships (Graeber 2011), as such it serves as a material link between the past, the present, and the future (Peebles 2010:227; Hart 2000), allowing for transactions between agents widely dispersed in both time and space (Giddens 1990:24).

These qualities led the sociologist Giddens (1990:22-7) to use money as his primary example of a *disembedding mechanism*. By large, money is a symbolic token allowing for the abstract comparison of value irrespective of geographical- and temporal boundaries, thus facilitating globalised social interaction by lifting social relations from their local context. A more apparent example of a disembedding mechanism is the internet. For example, Castells (1988:350) sees societies in the information age as "made up of networks of production, power and experience, which construct a culture of virtuality in the global flows that transcend time and space". The postmodern idea of a division between the virtual and the real (e.g. Turkle 1997) as demarcating a new era (e.g. Poster 1990; Castells 1996) was heavily criticised from the early days (Escobar 1994; Hakken 1999; Pfaffenberger 1992; Webster 1995; Lyon 1988). Already ageing ethnographies of internet phenomena tried to dispose of it (Uimonen 2001:2 & 18; Kelty 2008)–or tackled it head on (Boellstorff 2008).[17] As in Gidden's characterisation of money as a symbolic token, all forms of communication have "a virtual aspect in that symbols and their media of circulation stand for what people really do for each other" (Hart 2000:162)–the virtual character of the Internet merely means that communicative aspects are put in the infrastructural foreground.

Castell's metaphor of global flows brings to mind more apparent infrastructures, such as pipes transporting water; pipes that might be beneath the ground or above it (Björkman 2015). Social scientists studying infrastructures have emphasised ideas about (in)visibility. The function and design of infrastructures put certain elements in the background and bring others to the fore. Various aspects of infrastructures are visible and invisible at different times, and in different social contexts (Larkin 2013). For example, the virtual aspects of money might be more visible in transactions with digital monetary infrastructures than in transactions with physical cash. However, even in cashless societies, the social complexity behind everyday transactions is not generally reflected upon (Peebles 2021).

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[16] In order to structure this section according to the three sub-questions brought up in (1.2), I have combined the previous research and my theoretical framework here for better flow.

[17] I want to thank Paula Uimonen for giving me her doctoral dissertation on early internet communities. It allowed me to get a good theoretical oversight of early ideas in social science relating to the virtual.

Still, contestation of existing currency and experimentation with new forms of money such as Bitcoin, can make preexisting aspects of money visible (Maurer 2012[18]); approaching 'virtual' currencies such as Bitcoin can therefore be an effective means to further our understanding of what money is, and has always been (Miller and Horst 2012:3).[19] The title of this thesis is informed by the notion of (in)visibility within infrastructure studies, but is used here to refer to how Bitcoin as an infrastructure can illuminate general infrastructural features of money, such as virtuality.[20]

1.4.2 The Bitcoin Community

Despite the fact that they are part of fluid-, irregular-, deterritorialized- and transnational social landscapes (Appadurai 1990:297-301), several of my interlocutors referred to themselves as being part of the Bitcoin community. What holds these people together?

A lot of the previous research tries to determine the characteristics of the 'Bitcoin community' and the values embedded in 'Bitcoin' (Maurer et al. 2013; Karlstrøm 2014; Dupont 2014; Hellegren 2016; De Filippi 2016; Zimmer 2017; Swartz 2018; Dodd 2018; Brunton 2019; Calvão 2019; Bruun et al. 2020; Kinney 2021; Faustino et al. 2022).[21][22] However, few of these works explicitly detail how the Bitcoin community is constituted through offline practice.[23]

Rather, it has been common to turn to Benedict Anderson (1983)'s notion of the nation-state as an 'imagined community'. Anderson's argument is that national communities were made possible by developments such as printing press technology. However, Dupont (2023) has criticised the tendency to appropriate the concept of 'imagined communities' from the nation-state

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[18] Bill Maurer focuses on payment, arguing that this transactional moment is fruitful for investigating money. In a volume co-edited with the media studies scholar Lana Swartz, essays on a disparate set of payment technologies are brought together to investigate the material of money past, present, and future (Maurer & Swartz 2017).

[19] Kosmarski and Gordiychuk is also worth mentioning in their argument that Blockchain projects let anthropologists "peek into a vast playground of economic anthropology: a multitude of projects that question, put to the test or reimagine basic assumptions of main-stream economics [...]: What is value? What is money? What is an exchange?" (2021)

[20] I use visibility/make visible and illumination/illuminate as slightly different but intricately connected terms. Visibility is a trait, while to illuminate is to bring about this trait. The Bitcoiners explicitly talk about how learning and interacting with Bitcoin made them see money (and with it, the world) differently. They evoke metaphors about learning to see the world as it really is, metaphors such as: 'falling down the rabbit hole' or 'eating the red pill' and about 'seeing things through a Bitcoin lens'. The individual transformation and the Bitcoin gospel of 'fix the money, fix the world' mix well with the word illumination's christian connotations, and associations with spiritual enlightenment. Moreover, this sense of 'illumination' connects to the enlightenment aspects of modernisation (the importance of this will become clearer in chapter 4.)

[21] I have delimited my research from interrogating Bitcoin directly. Excellent work on how Bitcoin relates to the notion of value (Maurer et al. 2013; Dodd 2018; Calvão 2019; Tremčinský 2020; 2022a; 2022b), the ideology associated with it (Maurer et al. 2013; Hellegren 2016; Zimmer 2017; Dodd 2018; Swartz 2018) and the governance of Bitcoin (De Filippi 2016; 2019) has already been done by the authors I mention here. My unique contribution to this literature is to focus on what Bitcoin 'illuminates' in the embedded context of El Salvador. If the reader is interested in some of the findings of prior social science literature on Bitcoin, they can consult these sources or Appendix 1.

[22] I exclude many sources here that pertain to other Blockchain projects or cryptocurrencies but include other ones; the excluded sources are less relevant to Bitcoin in El Salvador.

[23] I–and Tremčinský (2020; 2022a)–do.

context in which it was originally developed. He argues that doing so diminishes the role that social practices have in defining these groups.[24]

The problem of what holds these people together is similar to the problem faced by anthropologists studying early internet pioneers (Uimonen 2001), or free software proponents (Kelty 2008; Coleman 2013). I especially find Kelty's work (2008) useful, because of his emphasis on the role of social practice.[25]

Rather than as an 'imagined community', Kelty shows how the Free Software proponents he studies are part of a *recursive public* (Kelty 2008:47-48).[26] This is how he defines a recursive public:

> "A public that is vitally concerned with the material and practical maintenance and modification of the technical, legal, practical, and conceptual means of its own existence as a public." (2008:3)

In Kelty's case, the Free Software proponents are part of a recursive public because they participate in the design of their own public sphere: a communication infrastructure. In turn, it is this very communication infrastructure that facilitates the public that Kelty studies. A recursive public is one that recursively forms, and is formed by, the technical infrastructure that facilitates it. Because of this, the concept of a recursive public responds to the question of "how the things that people make, make people" (Miller 2005:38).[27]

Money is also a form of communication infrastructure. The communication scholar Lana Swartz (2020) argues that Bitcoin and other new mediums of payment create different transactional communities and Tremčinský (2020; 2022a) provides ethnographic material showing how Bitcoin transactions can serve as a means for the cultural reproduction of the Bitcoin community. In his work on Slovak and Czech Bitcoin communities, Tremčinsky follows a rich tradition of economic anthropology and applies it to analyse 'on-the-ground' practices related to Bitcoin in a non-digital context'.[28] This contextual focus on the constitution of the Bitcoin community provides a notable exception to the lack of practice-oriented studies on what makes Bitcoiners a community. In chapter 3.2, I combine Tremčinsky's approach with that of another anthropologist (Peebles 2021)

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[24] Dupont (2023)'s criticism is in response to a paper by Jacobetty & Johnson (2023)'s on Blockchain communities, and not specifically Bitcoiners, however, his argument is applicable here as well.

[25] Uimonen suggests the term netscapes, combining Appadurai's (1990) notion of mediascapes and technoscapes (2001:74), and brings up Graham's notion of communities of interests (1999 as cited in Uimonen 2001:75) as well as Benedict Anderson's imagined communities.

[26] Kelty (2008) draws on the concept of imagined communities (Anderson: 1983) and previous work on the public (Dewey 1973), the public sphere (Habermas 1989) and public's relation to media (Warner 2002), (all references as cited in Kelty 2008).

[27] For example Kelty (2008) writes that ideologies, in relation to free software, cannot be apprehended a priori but rather emerge from technological practices: "geeks do not start with ideologies, but instead come to them through their involvement in the practices of creating Free Software and its derivatives" (p. 8).

[28] Other offline ethnographic research of Bitcoiners also include (Fletcher 2013; Calvão 2019; Guarna 2022), however, except a great MSc thesis by Starita (2018) only Tremčinský (2020; 2022a) studies Bitcoin in a context in which it is used for regular payments.

who, through his ethnographic study of the Swedish E-krona project, shows how transactions can be thought of as a form of phatic labour[29] (Elyachar 2010:453). Peebles argues that without being aware of it, people transacting with cash are engaging in everyday maintenance and production of social infrastructure: central bank money, 'a vast and consequential public good' in Peebles words (2021:8).

In chapter 3.3 of this thesis, I combine the approaches of Tremčinsky (2020) and Peebles (2021) to further show how Bitcoiners can be conceptualised as a recursive public (Kelty 2008). Portraying how Bitcoin is premised on the Bitcoin community and the Bitcoin community is premised on Bitcoin, I aim to contribute to a well-established scholarship on sociotechnical relations (Pfaffenberger 1992; Latour 1993:44; Mackay 1995:46; Ingold 1997:108; Ingold 2000:353; Uimonen 2021:221; Miller 2005:38; Larkin 2012:330; Schnitzler 2013). Moreover, characterising Bitcoiners as a recursive public suggests that while they are deterritorialized, they are embedded in a relatively well-defined social context.

'Bitcoiners' need to be used with care. It is an unwieldy concept that presupposes contested ideas about what really constitutes a community (Coleman & Collins 2006:2) or what would constitute membership of 'Bitcoiners' as a digital community (Hine 2015:34-35; Pink 2016:106). It should be noted that throughout the essay, I use the word in reference to my interlocutors' emic description.[30] In my field, 'Bitcoiner' almost always means Bitcoin maximalist. A Bitcoin maximalist is someone who actively strives to use Bitcoin as their sole type of money and does not invest in other cryptocurrencies. I sometimes use the term 'Bitcoin enthusiasts' for including people that use and like Bitcoin but don't refer to themselves as Bitcoiners.

1.4.3 Speculating with Bitcoin

Mike Peterson–the founder of Bitcoin Beach–has insisted that Bitcoin will help Salvadorans to 'design their future more' but the Latin American scholar Eric Vásquez argues that this clashes with the fact that one-third of Salvadorans sit below the poverty line, 'wherein designing a future, let alone surviving it, is a prospect with dodgy odds' (2022:606).

The question of who gets to imagine the future, and how this relates to structural inequalities (Bear 2020; Appadurai 2015; Szolucha 2018) is highly relevant to Bitcoin in El Salvador.[31] Prior critical studies of cryptocurrency initiatives in Puerto Rico (Crandall 2019;

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[29] Elyachar defines phatic labour as "labor [that] produces communicative channels that can potentially transmit not only language but also all kinds of semiotic meaning and economic value" (2010:453). Her concept builds on Malinowski (1963, as cited by Elyachar)'s prior concept of 'phatic communion': instances of gossiping and chatting for the sake of establishing social ties rather than relaying information.

[30] Emic refers to people's own, situated understanding of themselves. Emic is the insider's perspective and Etic is the outsider's perspective.

[31] Previous research shows that groups' capacities to aspire- and realise their visions of the future are unevenly distributed (Szolucha 2018)–often towards those that are better off (Appadurai 2015:188 & 299). Because of this,

Simpson & Sheller 2022), the Pacific island nations (Jutel 2021; Simpson & Sheller 2022), and Blockchain solutions to climate crises in the global south (Howson 2020) all comment on the neocolonial aspects of these projects. For example, Crandall (2019) analyses the blockchain projects in Puerto Rico that have sprung up in the wake of Hurricane Irma and María as part of the disaster capitalism that Naomi Klein (2018) also sees in Puerto Rico.[32] In her analysis of a group of foreign cryptocurrency proponents called the 'Puertopians', Crandall (2019:287) argues that these 'Puertopians' are engaging in settler colonialism. They are discursively constructing Puerto Rico as a blank slate in the wake of disaster. By doing so, they are able to imagine their Blockchain projects as part of a disruptive new beginning for Puerto Rico while in fact, they are merely reinforcing a neo-liberalisation of Puerto Rico while continuing a 500-year-old tradition of colonialism.

The Puertopians harbour utopian dreams for Puerto Rico and Crandall ends her paper by asking: "If blockchain opens the power to dream new techno-economic futures, it raises the question: who has the power and privilege to dream?", it is unlikely that it is the marginalised populations in Puerto Rico (Crandall 2019:293).

The anthropologist Appadurai deals with such ideas at length (2015: 179-197). He argues that *capacities to aspire* are unevenly distributed towards those that are better off (ibid: 188 & 299). However, Appadurai argues that projects aiming to help the poor should not see a low 'capacity to aspire' as mere by-product of poverty, but rather as a direct target for poverty-reducing interventions (ibid: 193). They should try to strengthen this capacity to aspire which in turn might lead to more sustainable poverty-reduction. Appadurai links a capacity to aspire to hope, and argues that hope is the political counterpart to the work of the *imagination* (ibid: 293) as a 'fuel for social action' (1997:7).[33]

References to the 'imagination' and the political philosopher Charles Taylor (2004)'s concept of 'social imaginary'[34], have become commonplace in anthropology (Sneath et al. 2009:6).[35][36] Related to the concept of 'social imaginaries' is the notion of the nation state as an

Laura Bear argues for a political economy of 'technologies of the imagination' (2020) that seeks to analyse the structural inequalities of speculation (see also Bear 2016:489 & 496).

[32] Klein's notion of 'disaster capitalism' stems from her book "The Shock Doctrine" (2007) in which Klein exposes the utilisation of crisis as a means for corporations and free-market ideologists to implement neoliberal policies such as privatisation, deregulation, and government spending cuts under the guise of altruism.

[33] It might seem strange that the word 'hope' is used 90+ times in this thesis without directly engaging with the work of Miyazaki (2004; 2006; Miyazaki & Swedberg 2016), Crapanzano (2003) or Ernst Bloch (1995). I do provide some conceptualisations of hope later (primarily from Bryant & Knight 2019, who references these authors). However, hope is not a central analytic concept, it is primarily referred to as an emic term. My focus here lies on how this notion is tied to Bitcoin which is better captured by Appadurai's concept of capacities to aspire.

These are indirectly referenced through Bryant & Knight (2019) which is brought up later in this essay.

[34] Charles Taylor defines social imaginaries as: 'the way people imagine their social existence, how they fit together with others [...] and the deeper normative notions and images that underlie these expectations' (2004:23).

[35] Kelty quotes Charles Taylor's concept of social imaginaries in his work on free software proponents 2008:47-48; Guarna does so in his work on Blockchain 2022:10; and Moodie does so in her work on post-war El Salvador 2010:3

[36] Sneath et al. agree with Claudia Strauss (2006:322 as cited in Sneath et al. 2009:7) that the concept of a (social) imaginary is largely a rephrasing of the culture concept. As such, the relation between a 'capacity to aspire' and material poverty relates to an age-old anthropological question of the relation between culture and material culture. Do material

'imagined community' (Anderson 1983). Remember, Anderson's argument is that printing press technology offered the possibility to imagine communities on a national level. Likewise, Sneath et al. (2009) are interested in how imaginaries come about. They put forward the concept of 'technologies of the imagination'.[37] Technologies of imagination include both the social and material means by which particular imaginaries are brought about (2009: 6). For example, attempts at bringing about modernity through infrastructural projects (Pedersen 2011:45; Mattelart 1996, 2000 as cited in Larkin 2013; Mrazek 2002; Dalakoglou 2010: Uimonen 2001:149) can be interpreted as aspirational practice that use infrastructural projects as technologies of the imagination to enact particular imaginaries of the future.

In their overview of leading social-theoretical work on the future, Oomen et al. (2022) summarises a body of literature on material-semiotic approaches that emphasise the material aspects of anticipation (Adam & Groves 2007; Groves 2017; Jasanoff & Kim 2015; Urry 2016 as cited in Oomen et al. 2022). Essentially, the role between the material environment and images of the future have circular influences on each other:

(1) The current *material* environment (of human bodies, infrastructures, sociotechnical apparatuses, forms of money…) influences

(2) the types of futures we *imagine*. This in turn influences

(3) how we experience and take *actions* in the current environment; which influences

(4) the future *material* environment (consisting of new bodies, infrastructures, apparatuses…).

Thus, the current state of things is partly the result of past- and current aspirations[38] (2022:256). An unequal distribution of a capacity to aspire is related to but not determined by material factors.[39]

Similarly, Sneath et al.'s argue that 'technologies of the imagination' only affect the imagination by way of 'affordances':

> technologies 'afford' imaginings in ways that, though hardly random, are nevertheless essentially unpredictable and often quite unintended (2009:22).

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conditions determine culture (Engels & Marx 2008[1845]:57 & 61)? That is: 'First the grub, then comes culture' as Bertol Brecht famously summarised cultural materialism (Moberg 2013:78). Or was it, for example, the ethics of protestantism that paved the way for capitalism? (Weber et al. 2001[1930]). The nuances of this discussion is well beyond the scope of this thesis but suffice to say that the agentive emphasis on the imagination does in large part follow the tradition of Max Weber.

[37] The concept doesn't necessarily have anything to do with technology in the commonsense meaning of the word but is inclusive of both practices and artefacts.

[38] Partly since the current material environment (1) also directly influence the future material environment (4), and directly influences the experience of and actions taken in the present (3) (which influences the future material environment).

[39] For further elucidation of the connection between (1) and (3), see also Ingold's depiction of *skill* as a property not of an individual human body, but of 'the total field of relations constituted by the presence of the organism-person, indissolubly body and mind, in a richly structured environment' (Ingold 2000: 353)

Let's circle back, what does this have to do with Bitcoin? In his history book on Digital Cash, Finn Brunton almost approaches nagging in his emphasis on the intricate connections of currency and time (4; 16; 22; 29; 46; 87; 118; 127; 131; 178; 188; 196; 205). For Brunton, digital currencies not only mediate temporal relationships of credit-debt (Graeber 2011)—they are also forms of speculative fiction that imagine particular futures. Similarly, Zimmer (2017:330) makes the case that cryptocurrencies are genres of utopian imagination.

To better understand what Brunton and Zimmer mean, it is useful to apply Sneath et al. (2009)'s concept of 'technologies of the imagination'. If we conceptualise Bitcoin as a technology of the imagination, we can attempt to ask what kind of future imaginaries it affords.[40] People make technologies, this means that technologies are inscribed with cultural meaning (Escobar 1944: 211; Mackay 1955: 46). So a good place to start is to take a brief look at Bitcoin's design.

Bitcoin was developed in the wake of the financial crisis of 2007-2009. 2008, The pseudonymous inventor(s) of Bitcoin, Satoshi Nakamoto, posted the Bitcoin whitepaper on a mailing list for people interested in cryptography. The people on this cryptography list had long wanted to create something like Bitcoin. Bitcoin took inspiration from several earlier efforts from people on this mailing list, efforts at creating 'digital cash' to preserve anonymity when transacting, and to take away control from banks (Brunton 2019:82; 101; 116; 155 & 158-159). The Bitcoin whitepaper included a design proposal for a *Blockchain*: a decentralised ledger or a digital account book in which new entries need to be verified in a distributed fashion by a majority of users. By this method, there's no need for a bank or a clearing house to handle transactions. In the first *block* of Bitcoin's blockchain–the genesis block–Satoshi Nakamoto included the text: "The Times 03/Jan/2009 Chancellor on brink of second bailout for banks" (Brunton 2019:153).[41]

Bitcoin is the currency that changes hands on this Blockchain.[42] In analogy to gold, there is a finite supply of Bitcoins, but new Bitcoins can be *mined*. New Bitcoins are mined roughly every ten minutes by distributed computers running automated software trying to solve cryptographic puzzles. How hard these puzzles are depends on how many computers are trying to solve them. Roughly every four years, the amount of Bitcoin that is rewarded for mining is halved. The process is designed so that no more than 21 million Bitcoin will ever exist. Roughly, in the year 2140, the last Bitcoin will have been mined.[43]

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[40] I use the term 'future imaginaries' here, however, throughout the essay I sometimes use terms like 'speculative visions' or speculative futures. I do this to more specifically capture the relation between trusting in- and anticipating a particular future by using a particular type of money–as well as the performative attempt at bringing about such a future through speculative currencies like Bitcoin.

[41] This historical context points us in the right direction; allowing us to see Bitcoin as a response to a crisis of legitimacy for modern financial institutions (Dodd 2016).

[42] It is a little bit more complicated than this but if you are a beginner trying to understand Bitcoin it is a helpful metaphor

[43] If the reader feels like they need to understand more about Bitcoin they are welcome to consult the glossary in the introduction to this thesis, the appendix at the end of it, or an excellent description on page 158-164 in Brunton (2019). Some features of Bitcoin will be gradually explained throughout the thesis.

This artificial scarcity is a design choice to mimic gold in the digital realm. The money supply can't be increased or reduced by something like a central bank, and the gradually decreasing availability of Bitcoin makes it *deflationary* by design. Early on, it was so easy to mine Bitcoin you could do it on your personal computer. Back then, successfully mining a block would earn you 50 Bitcoin and today you only get 6.25.[44] Back in 2010, 40 cents could buy you one Bitcoin (if you found a seller), at the time of writing one Bitcoin is worth $28 505.[45]

This last part demonstrates the speculative nature of Bitcoin, but remember that in calling Bitcoin a speculative currency, Brunton doesn't refer to speculation in merely a financial sense but as 'speculative fiction that imagines and narrates futures' (Brunton 2019:16). According to Brunton, Bitcoin is associated with an imaginary of future crisis (ibid:203). Just like owning gold can be useful if your national currency gets hyper-inflated, Bitcoin is understood as a protection against inflation by its proponents. If a totalitarian state or another political power spies on its citizens' payment histories, blocks certain transactions, or seizes their funds, Bitcoin can be an alternative way of paying for things (if anyone accepts it). Likewise, Swartz (2018) sees Bitcoin as being conjured by a particular understanding of economic history and oriented towards a speculative future of economic breakdown. She argues that Bitcoin proponents are living in an 'evacuation of the near future' (Guyer 2007:409), awaiting a 'self-prophesied apocalyptic rupture' in which their knowledge and ownership of Bitcoin will save them (Swartz 2018:644).[46]

These ideas are related to Brunton's argument that Bitcoin affords an escape temporality (2019:183); this notion builds upon a prior notion of escape geography (ibid:181) that will be explained throughout the essay. The combination of escape geography and escape temporality is what informs the usage of *spatiotemporal* imaginaries in my research question.[47]

1.5 Method

1.5.1 Methods

I used a mix of participant observation, qualitative interviews, and digital ethnography. Ethnographers grapple with expressing the unsaid in social interactions and participant observation allows us to combine experiential knowledge to understand implicit aspects of participants'

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[44] Tremčinský argues that Bitcoin simply reproduces the history of capitalism anew: "The primitive accumulation already took place, with more than 90% of all Bitcoins being mined and even 50% mined during the first four years." (2022: 122)

[45] Early adopters that managed to amass a lot of Bitcoin are today called whales, if they sell their Bitcoin they might affect the market price, whales are large enough to affect the waves of the sea. Mike Peterson refers to the anonymous donor behind the Bitcoin Beach project as a 'whale'.

[46] Zimmer (2017: 330) argues that Bitcoin's mining metaphor 'hardcodes' regressive elements of historical money, such as ecological devastation, colonial subjugation, and primitive accumulation into a future imaginary.

[47] Remember however, that the imaginaries that are associated with Bitcoin are not deterministic. Yokoyama (2022) argues that Bitcoin affords a wide range of 'human-Bitcoin relations' specifically because of its practical indeterminacy. This, again, leads us to the importance of praxis. Visions of the future are enacted by practices, and such futuring practices can be analysed in their capability to both maintain and disrupt visions of the future (Oomen et al. 2022:258).

retrospective accounts (Hirschauer 2006; Bloch 1998). I spent time with a core group of about six relatively permanent Bitcoiners in El Zonte, as well as Bitcoiners coming and going to El Zonte and parts of the local population. Me and my Bitcoin interlocutors cooked together, ate together, swam in the ocean together, worked together and had long conversations in groups about Bitcoin and other topics.

However, it was apparent that a significant part of the field occurred online and that there were many offline/online relations. One breakfast with these Bitcoiners, a Bitcoiner who had just arrived to meet other Bitcoiners in El Zonte exclaimed joyously 'I love this, this is like real-life Twitter!', during the conference another Bitcoiner said about finally being in El Zonte 'Bitcoin Beach, I can't believe this, it's like I am inside a meme!'

Christine Hine argues that an autoethnography of digital media can discover offline/online relations that are otherwise hard to discern (2015:73-74). Taking inspiration from Patty Gray's (2016) study of Russian street demonstrations via social media, I also tried to understand the experience of being part of the same information flows as my interlocutors. I checked Twitter throughout the day because my Bitcoin interlocutors did and tried to follow the same accounts as them. I read up on the references they made when I hung out with them, and the newspaper articles and YouTube videos they sent me about politics and the economy. All of this fed into my conversations and interviews with Bitcoiners.

Bill Maurer (2012) argues that payment has been understudied in anthropology and, of course, payment was important in the world of my interlocutors.[48] I, too, bought Bitcoin and tried to pay with Bitcoin as often as I could. To further understand the intersection of online and offline as well as my interlocutor's experience of actual Bitcoin usage, I used elicitation (Pink 2009:93-5). This meant that I and my interlocutors would go through their recent Bitcoin transactions. I would ask if they could live-narrate a payment for me or talk to me while using a Bitcoin ATM. I often asked them to explain to me how they used a particular Bitcoin application or a Bitcoin-related piece of hardware.

Aside from participant observation, the major remaining part of the fieldwork was interviews. I made audio recordings of 44 interviews, which I have transcribed using an automated speech-to-text software. The resulting text was then systematically reviewed by hand for thematic analysis. I tried to do the interviews in as informal settings as possible: over food, while driving, or while being shown around. Most of these interviews were by appointment, but unstructured and highly qualitative, with a prepared set of key themes and questions adapted to the individual and the situation. I also did a few shorter, semi-structured interviews with locals in El Zonte about their Bitcoin usage and attitude towards Bitcoin.[49]

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[48] At some points I considered whether my field could be characterised as the world's first case of payment tourism.
[49] There are regular surveys on these issues but they are on a national level.

1.5.2 Site

'Bitcoin Beach' has significant connections to other places. Social anthropologists have since long used different network methodologies to adapt to the fact that social relations often stretch beyond the immediate physical environment (Mitchell 1972; Hannerz 1980). My main site for fieldwork was El Zonte, but my research was multi-sited (Marcus 1995). To a large extent, I took Appadurai's (1988:5) approach of following the thing in order to let the field emerge ethnographically. I did four interviews in San Blas, which is a gated community approximately 25 minutes away from El Zonte. I also spent some time in the capital – San Salvador – to interview representatives of Bitcoin-related companies and organisations. I also attended the 2-day Adopting Bitcoin conference and talked to people at two universities in San Salvador. I went to Panajachel, Guatemala, on Patrick Melder's organised four-day excursion to see his project: 'Bitcoin Lake'. The excursion was organised by Melder himself and I went there together with other attendees of the conference. I also followed a group of Bitcoiners on a day trip to a small island called Isla La Pirraya in the Usulután Department of El Salvador. Here, the educational initiative Mi Primer Bitcoin hosted a Bitcoin graduation ceremony together with the governor of Usulutan.[50]

1.5.3 Self-reflexivity

As Davies (2008) has argued at length, it is important to incorporate reflexivity in ethnographic research. This is done throughout the thesis, although I delineate some aspects of my position here.

I went to a Bitcoin meet-up at a restaurant in El Zonte and presented myself as an anthropology student studying Bitcoin Beach and foreign Bitcoiners. A young man leaned over to me and said: "Oh, so you're here to write about how we're all sexist right-wing dickheads?"

Pasieka (2017) argues that anthropologists are more politically uniform than the rest of society and fail to take political deviations from this norm seriously. Taking our own views for granted while devaluing the emic view as illegitimate opposes the decade-long anthropological project of focusing on people's own understanding of their lived realities, concerns, and aspirations (2017:28-29). Previous research has described Bitcoiners as right-libertarian and these political beliefs were very salient in my fieldwork. Generally, they thought the mainstream institutions I represented were biased and critical towards the Bitcoin space, and some of them were vocal in their suspicion of me. Our political differences framed our interactions and produced difficulties.

The social events were clearly male-dominated and I am pretty sure I would have been less comfortable there as a woman than as a man. The Bitcoiners I mainly interacted with had grown up in Canada, Germany, France, the Netherlands, the United Kingdom, Sweden, Slovakia, New Zealand, Australia, Japan, Mexico, Guatemala and El Salvador. I also spoke with Bitcoiners from

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[50] Looking at Bitcoin as a mobile technology, I take general inspiration from (Büscher & Urry 2009) who advocate for a multi-faceted ethnographic approach to examine the movement of people, objects, and ideas, encompassing diverse forms of mobility such as physical travel, imaginative anticipation, virtual communication, and face-to-face interactions–emphasising the interconnectedness and complex meanings associated with each form.

the United States, Egypt, Somalia, Algeria, Argentina, Italy, Finland and South Korea. They were also of diverse age groups. Most of them had lived in several countries and interacted with Bitcoiners from all around the world online. The main language at the Bitcoin meetups and the conference was English. Favouring English as a main working language (Kelly 2014:11-12) undoubtedly led to an emphasis on a particular type of sources (Fontein 2014:84) which might recreate problematic structures embedded in the post-colonial situation of my field (Kaur & Klinkert 2021:249). My main interlocutor became a non-Spanish-speaking Bitcoiner living at an Airbnb belonging to the people behind the Bitcoin Beach project.

1.5.4 Ethical problems

I was constantly analysing the social interactions between me and my main group of interlocutors for my thesis. I was never 'off' I told them. However, they sometimes forgot about this. They had difficulties separating my time 'on duty' with my free time and I too had difficulties with this.[51] Although I felt these problems showed me I was successful in doing participant observation, I also felt that they posed ethical problems with informed consent. Perhaps most of all, they produced complex emotions regarding social relationships and identity.

My interlocutors were wary of privacy, and I had mixed feelings about taking on the role of the anthropologist in this setting. I experienced similarities to Carey's (2017) field experiences of mistrust, leading his interlocutors to characterise him as an information thief (2017:85-106). This was exacerbated by studying sideways (and sometimes up) (Hannerz 2010) as well as studying people I did not politically sympathise with (Pasieka 2017). Some interlocutors saw me as a friend. Attempting to scrutinise myself from the eye of my interlocutors, I saw myself as an uncanny friend that always seemed to be somewhere else, distanced by an ulterior motive. The type of person who obscures parts of his emotional life and invents others to achieve *participation*. Maybe it was less of a joke than I thought it was when I introduced myself to the Bitcoiners as a spook.

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[51] Some material I had to omit because of this and I am still struggling with how to present certain material while ensuring an appropriate level of anonymity.

A view over El Zonte. This is on the east side of the beach.

2. Hope House

After having failed to pay the 'Bitcoin taxi' the night before, I now wake up to see El Zonte in daylight for the first time. But I am not looking for El Zonte, I am looking for Bitcoin Beach. And so, I seek out Jorge Valenzuela.

Jorge grew up in El Zonte. When he was a kid, he used to think the only opportunity for him and his peers was to leave El Zonte and go to the US. However, Jorge didn't end up leaving. Instead, he found motivation to build his life here and try to convince others in his community to do the same. When he was a teenager, he became friends with a surfer and Christian missionary from California called Mike Peterson. In a podcast, Jorge remembers:

> You know, here was this guy from the US, and we saw him from when we grew up, and you see a lot of other tourists but this guy, first thing, you know, first thing he would always ask, Jorge, how is your family? Every time.[52]

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[52] All the quotes in this thesis are in English, some have been translated from Spanish.

When Peterson came with the offer to Valenzuela and his wife to join them for a missionary charity program in El Zonte, Valenzuela agreed. According to the Hope House website, the project–initially called 'Filling The Love Tank of The Children in El Zonte'–started in 2010 and is 'supporting young people by providing them hope for a better future'. Hope House does this by hosting free surf classes, paying an allowance and providing transport for kids who stay in school. They also offer spiritual coaching, and organise AA meetings, English classes and computer classes. Their emphasis on hope responds well to Appadurai's engagement with the term (2015:193) and his argument that projects aiming to help the poor should not see a low 'capacity to aspire' as a mere by-product of poverty, but as a direct target for poverty-reducing interventions (ibid).

Hope House is a physical place in the middle of El Zonte. It consists of one big building, two smaller ones and a large yard. The front of the Hope House building is decorated with the Bitcoin beach logo and inside the main building–in the same space they teach classes to young kids–is a Bitcoin ATM.[53] Bitcoin merchandise is also on display for sale. On the upper floor, there is a co-working space (often inhabited by Bitcoiners) and the two other buildings are rented out as Airbnb (often to Bitcoiners). The main organisers of the Bitcoin Beach effort to create a 'circular economy on Bitcoin' in El Zonte were Hope House personnel; Jorge Valenzuela, Roman 'Chimbera' Martínez and Mike Peterson himself. In contrast to this overlap, the Hope House website doesn't mention Bitcoin at all and the Bitcoin Beach website doesn't mention Hope House. However, Jorge's Twitter handle used to be 'Bitcoin Beach' and in newspaper articles and interviews, Bitcoin Beach and Hope House are usually treated as the same. I was invited to take part in the Hope House activities and did so, but none of the activities were really Bitcoin-related. One representative said that Bitcoin donations were only a tool to run Hope House and Jorge told me he felt he had already done his work with Bitcoin Beach. What he really cared for now was Hope House.

Jorge told me this when I interviewed him in the meeting room at Hope House. Me, Jorge and six empty black chairs around a heavy table made of stone and glass. Jorge took good use of the functionality of leaning back and forth in them. He mostly leaned back, I mostly leaned forward.

When I insisted on asking him about Bitcoin Beach, he answered briefly and ended up pointing to my notepad twice to ask if I had any more questions. The interview felt like I was a case detective and he was a suspect with a good alibi. Journalists have treated Bitcoin Beach with suspicion and on Twitter you will find numerous critics. During my fieldwork, I encountered diverse accusations of Bitcoin Beach being donation fraud, money laundering, a cunning scheme to monopolise business in El Zonte and a front for gang activity.

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[53] The way a Bitcoin ATM works is, you open a Bitcoin wallet application on your phone, bring up a QR-code in the app (that denotes the address to your Bitcoin wallet)), scan the QR-code in a camera mounted on the ATM, insert US dollar bills into the machine and get the corresponding Bitcoin sent to your phone wallet. For the reverse process you send money from your phone wallet to an address displayed on the ATM and it spits out cash for you. Chivo ATMs charge no commission but other ATMS (like Athena) do.

The day after meeting Jorge, I am walking above the main street. This is the 'pueblo' part of El Zonte–where most of the locals live. Here, the odd car drives by carefully, on a road made of hardened mud. Chickens roam free and there are no tourists in sight. I go around here asking people if they use Bitcoin, most people say no. Some just laugh at me and shake their heads, and some people say that their kids do.

I meet a handsome man sitting on two crossing paths. He tells me he is from Guatemala and speaks English because he cleaned windows in New York for seven years. Another man joins our conversation, and the Guatemalan window cleaner helps out when my Spanish fails me. I crouch down on the dirt road, distracted by my bad posture and the bugs biting my sweaty legs. None of the men uses Bitcoin. The man tells me he feels like Bitcoin is an experiment and that El Zonte is the laboratory. Then they both tell me to stay still: five malnourished cows are passing behind my back. I ask the man about the locals in El Zonte that do like Bitcoin, telling him I've spoken to Jorge.

'Jorge's my cousin', the man tells me.

'Of course, Jorge likes Bitcoin', he continues while pointing to a nice white house up on the hill. The house is placed like a watchtower over El Zonte.

'That's Jorge's house, paid for by Bitcoin'.

The house on the hill is indeed owned by Jorge. There's even an Instagram account for it, an account where you can see pictures of female influencers sipping drinks in the infinity pool Jorge has up there.

When I joined one of Hope House's surf lessons, I saw Jorge doing what he perhaps does best. To a circle of teenagers standing on the grass in front of him, Jorge animatedly mixed jokes with heartfelt advice and quotes from the bible. Naturally trapezing between the philosophy of surfing, Christian values, stories from El Zonte and general life advice, Jorge attempted to pass on a message of positive attitude and belief in oneself to the youngsters. Later, out in the water, the jig was up on my athletic charade. A violent wave tossed the surfboard over my face, sending me right back towards the beach while bloodying my feet on the rocky bottom. It was Christina's turn (one of the teenagers) to have the surfboard now. Swimming, I tried to catch up with the rest of the Hope House teenagers. They were going far out this time. Jorge stayed behind, waiting for me to catch up. I yelled at him that I'll go back and look from the beach but he didn't accept this: "No, you've already come this far", he said. Annoyed, I pondered how it might feel to be a weak kid in Jorge's presence. I kept swimming, struggling… already tired. Through eyes red of salt water swash, I now saw a hard-headed military man determined to push you over your limits. I panted like a useless academic, wondering whether they could save me if I was swept up in a current. In a short but shameful moment, I wondered whether this was the way for them to get rid of the nosy anthropologist. I would simply disappear into the vast blue water, my remains washing up in the Trobriand islands.

Christina asks if I am tired when I finally reach her board. Yes, I tell her. She suggests to Jorge that I don't want to keep going; that I am tired, but Jorge tells her to relax. Gasping for air, I turn around and lay on my back. We have come to a point beyond the waves now. The ocean is calm out here. I look back at El Zonte and it is incredibly beautiful. It is the first time I see all of it. Lush trees in dark green shroud the billowing hills, rural dwellings with tinplate roofs hide under the grove beneath the bridge; the bridge over the river that splits El Zonte into east and west. On the east, there's the point break. The first place you see here is Aldo's place, then there's El Teco and behind it, there's Luz de Mar; where Dora and her sister checks every morning if Nina Tomasa is still breathing. About two years ago, the old woman's eyes turned to the indifferent colour of the ocean and she lost her memories of carrying Dora through day-long walks on the muddy mountain road that stretches all the way to Chiltiupan (the hilltop village that several of El Zonte's inhabitants descended from). Next to Luz de Mar, there's Viola's restaurant and next to it is the beachside dwelling of the stoned-out bodysurfer El Pesce. All the places mentioned so far are wooden structures with questionable legal status[54] and thatch roofs. Nina Tomasa is the last living of the five ladies that I was told was the founding members of El Zonte.[55] One woman told me that Tomasa resented change and that even though she can no longer see or hear, she swings back and forth in her Hammock keeping her ground. When she dies, the old El Zonte will be lost forever.

The new El Zonte is exemplified by Olor De Mar, Palo Verde and Puro Surf; one restaurant and two large hotels with a very different history, aesthetic and price range. Further east, up on El Zonte hills, there are a few, often empty, Miami-style beach houses built by rich Salvadorans from the city around the 60s. A great point break with famously reliable waves: the east side of the river is the surf part of El Zonte. A foreigner who had lived here for about twenty years told me that when she first moved here, there wasn't much on the other side of the river. However, the place has changed rapidly. She traces back the point to when the tranquil hideaway that used to be El Zonte started on a path of globalising no-return—it was when she saw a tourist wearing sneakers on the beach. From out in the water, I see tourists taking off their sneakers to walk across the river to the west side of El Zonte. This is the side where Hope House is located. It is also where there are noticeably more businesses accepting Bitcoin. On the beach is Olas Permanentes, one of the places that have been here the longest and where Jorge used to work as a waiter. Being one of the places where it is most seamless to pay with Bitcoin; I would spend several afternoons here with foreign Bitcoiners, drinking micheladas and watching beginners try surfing the kind waves of the sunset. On the right side of Olas is an odd one; a ranch owned by a group of French Canadians that serves as an exclusive resort for visiting French Canadians. I believe this little Quebec enclave (and a cheap

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[54] Other people repeatedly told me that these structures can't be there legally because officially the government owns the land by the beach. However, the people owning these structures told me there had been some kind of agreement, that they did have some settlement rights. During the last ten years of development, new hotel owners have tried to get rid of some of these structures to improve their view. At the time of writing there is an ongoing struggle between a hotel company claiming a lot on the west side of the river, where a family lives.

[55] I am not sure if this is correct, but it is what I was told.

flight connection) is the primary explanation for the exaggeration of Canadians in El Zonte. On the top of the left side hill, I see a white house overlooking the town; It's Jorge's. Like Jorge, I see all of it, and I feel glad he pushed me out here; beyond the waves.

To the left: the entry to the Hope House building, in the centre: the river that parts El Zonte into east and west, to the right: one of the houses next to where the new widened road is planned to be built

Back in the Hope House office, Jorge is wiggling back and forth in the black chair. Jorge manages to steer our conversation from Bitcoin towards Hope House and his philosophy. He delights in telling me his life story; as an exemplary tale of sorts. Jorge appears to me as a believer, a successful believer. He is well-groomed, has a strong handshake, drives an expensive car and smiles with eyes illuminated by enlightenment. Although Hope House tries to keep kids in school, Jorge seems proud to tell me he dropped out to focus his time on learning English and how to use a computer. Several locals complained to me that the local school had been lacking in standards and Jorge tells me about people that did well in school but later went back to the same fishing boat that their father had depended on. According to Jorge, Bitcoin has enabled people here to save money and to plan for the future. Jorge tells me about the importance of building your own future:

> You gotta be smart. Sure, you can get a construction job but what are you gonna do? Go to the bus every day to work for someone else, in the heat without any money to save? Then what?

He expresses some distaste for people he knows that don't save money or plan for the future. Jorge often brings God into the conversation and repeatedly lets his palms face the sky, signalling gifts. He says that God has given him a gift of entrepreneurship:

> It's not about money, or bitcoin or surf... it's only a material, God gave me the gift to take something [pause] and turn it [another pause] into something else [holding his palm out to me smiling]

Jorge weaves entrepreneurship, hope and God into the same web. Comparisons to Max Weber's classic work on the protestant ethic and the spirit of capitalism comes to mind. For Jorge,

success is merely the measure of that gift of entrepreneurship that God has given him (sola gratia). The monetary result of his ventures is 'only a material' (alongside Bitcoin and surf) to be invested in the future. The process is not about material gains, but about something immaterial. It is about turning belief into futures through the (Christian) mechanism of hope. Laura Bear (2015)'s studies 'exemplary' men engaged in capitalist speculation on the Hooghly River. Bear (2015) argues that they draw on technologies of the imagination to engage in capitalist divination comparable to Malinowski's definition of divination: "the expression of human hope and confidence, of the need for a morally integrated attitude towards the future" (1935:239). For Jorge, 'money, Bitcoin and surf' are technologies of the imagination in a similar vein. Unlike the frugality and work ethic inherent in the Protestantism that Weber writes about,[56] Jorge contrasts what he sees as short-sighted thinking inherent in labour, to the entrepreneur's ability to mobilise the present by speculation positing possible futures.[57]

Later on in my fieldwork, Mike Peterson tells me that people that are using Bitcoin learn how to plan further ahead into the future: 'because Bitcoin lowers time preferences'. This, he tells me, is how Bitcoin fits into Hope House's overarching goal of providing hope. The idea that Bitcoin lowers time preferences, was common among the Bitcoiners I met.

Their argument is that people's first-hand experiences of the deflationary nature of Bitcoin will lower people's time preference; meaning, people will value immediate rewards less than future rewards and therefore become inclined to save money. Inversely, Fiat money is inflationary. Since it decreases in value over time, there is a preferential bias to spend it now rather than to save it. This leads to an attitude favouring short-term satisfaction over long-term satisfaction. It is here–in the perceived ability of the materiality of technology to nurture a certain mindset (Schnitzler 2013[58])–that Bitcoin is, without doubt, thought to be a tool for financial inclusion. Bitcoin provides not only access to banking but also, to financial education. 'Lowering time preferences', is not only about starting to put money into a savings account, it is about investing in the future in a broader sense. The repeated expression of 'lowering time preferences' rather than just 'promoting

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[56] Jorge tells me that he doesn't follow any specific Christian denomination but merely 'Christian values'. He told me that this is a mix of catholicism, protestantism and Mike Peterson's interpretation of christian philosophy. Mike Peterson was also vague about this, saying that it was generally protestantism and that he was not affiliated with the evangelical churches in El Zonte.

[57] Oomen et al. (2022) say, based on sociological- and anthropological literature on hope, that 'hope gives meaning to future-oriented practice through the imagination of different futures' (2022:255).

[58] Similarly as to Schnitzler's study (2013) of the prepaid water metre in South Africa, the constraints and affordances of Bitcoin is 'capable of eliciting and shaping certain habits, subjectivities and disposition' (2013:678).

saving' clarifies that this is about nurturing a mindset that favours long-term satisfaction.[59] The phrase is often said together with another common phrase: 'Bitcoin is hope'.[60]

When I walk out of Hope House, I talk to another person working there; a person who wanted to remain anonymous. He tells me that Bitcoin is only a tool: "Hope House doesn't need Bitcoin to exist. Maybe Bitcoin is only temporary, but Hope House is forever"

We clearly see how the temporalities connected with Bitcoin are important in the Hope House project. In the emic idea that Bitcoin can lower time-preferences, Bitcoin is literally seen as a 'technology of the imagination' (Sneath et al. 2009) that can conjure 'Hope' through intervening in users' capacities to aspire. In turn hope, as an affective stance towards the future, can be a method of performatively[61] bringing about certain futures (Oomen et al. 2022:255), by directing aspirational actions (Malinowski 1935:239; Bryant & Knight 2019:132-157). This first chapter has served as a further introduction to the field, as well as a primer to some key issues of how Bitcoin is mobilised for creating 'hope'. We will now turn to a different group related to Bitcoin: the foreign Bitcoin maximalists.

3. The Bitcoiners

3.1 Barbecuing

On the Hope House lawn is a white box with opaque black glass that you can look out from but not into. Inside this air-conditioned, luxurious Airbnb rental, I sit together with Eric, a European Bitcoiner who is spending several months in El Zonte for the second time. There are multiple windows of code displayed on his computer screen. Eric is getting his monthly paycheck in Bitcoin, working as a programmer on a Bitcoin-related project. Eric is not his real name. It is not even his real pseudonym.[62] Even though we became close friends, I still don't know Eric's real name. Several of the Bitcoiners I meet introduce themselves with their online pseudonyms, as Eric explains to me: "I wouldn't want anyone to send a letter bomb to my parent's house"

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[59] Even if previous research has shown that access to mobile banking has improved the capacity of low-income cash-based users to save (Nandhi & Blumenstock 2018), I have seen nothing to suggest that Bitcoin actually does lower time-preferences–it is the emic idea here that is interesting. The developmentalist underpinnings of this idea will be dealt with in (ch. 5).

[60] Mi Primer Bitcoin is another charity initiative in El Salvador that travels around the country to teach people about Bitcoin. John Dennehy, the founder of this project, talks about how they see Bitcoin as a tool to lower time-preferences and as a tool to provide hope for Salvadorans.

[61] The notion of performativity here comes from How To Do Things With Words (1962), in which the philosopher J.L Austin gives the example that for instance 'I apologise' is a performative utterance because the statement is not a report on the actual state of affairs of the world, but rather an action that aims to bring a particular state of affairs into being.

[62] All the names in this thesis except those to public figures are pseudonyms. Due to the importance some interlocutors placed on anonymity (and the practical difficulty in protecting this in a small place like El Zonte where everyone is familiar with everyone), some of the characters are also composite characters. I won't specify which. Confusion will serve as an additional layer of identity protection.

The view of Hope House's yard from Eric's airbnb. Notice the orange mini-bus sprayed with Bitcoin logos. It is called the 'Bitcoineta' and was previously owned by Argentinian Bitcoin missionaries, they donated it to Hope House.

Mirroring the history of Bitcoin's development, Eric got into libertarianism and cryptoanarchy before he got into Bitcoin (Brunton 2019; Hellegren 2017). Bitcoin's development has strong roots in the cypherpunk mailing list that started in 1992. The 'cypherpunks' on this mailing list were people who advocated cryptoanarchy: the political practice of using cryptography to achieve libertarian freedom (Brunton 2019:87). In doing so, they put a crucial political emphasis on secrecy and privacy (ibid:92-94). Eric is charmed when I refer to him as a cypherpunk but avoids the classification. He says he is unsure of whether he has earned the right to bear such a dignified term.

As we walk down to the beach, Eric's pale skin, his glasses and his walking shoes, stand in stark contrast with the long-haired, tanned and shirtless surfers we walk past. Eric takes me to the beach through the entry at Olas Permanentes—his usual spot. This funny-looking European rarely ventures to the east side of the river. Normally, Eric works at home during the day. In the late afternoon, he goes to the beach to swim and to watch the sunset; afterwards, he has dinner with other Bitcoiners.

After swimming, we go to sit upstairs at Olas. Olas Permanentes means permanent waves. I order a beer and Eric orders a fruit shake. The salty wind from the ocean cools our sunstrokes from the unbearably wet heat of another day that is slowly receding. Eric tells me many things, things that mix with the heat to produce a sense of disorientation with origins I can no longer pinpoint. I am far away from the left-liberal setting of my cold habitat in Stockholm. For Eric, tax is immoral a priori. He says it is extortion leveraged by the state's threat of violence. Sure, I say, trying to suggest a parable to Graeber (2011). Before I can, he turns to how hiring private armed guards to protect your property is not immoral. We have polite arguments about Bitcoin, primitive accumulation, land ownership, the state's monopoly of violence, debt money and getting rich through real estate. We're out in deep conversational water and I feel like we're swimming after each other in circles. Eric tells me he thinks this is fun.

Eric attended last year's Bitcoin conference. On the last day of the conference, he saw Nayib Bukele stepping up on a stage only a couple of hundred metres from Olas Permanentes.

Accompanied by pyrotechnics and an AC/DC song, Bukele surprised Eric and the rest of the crowd by announcing plans for building a futuristic 'Bitcoin City' in El Salvador. The plan is to build it in the eastern part of the country: in Conchagua, La Unión. The plan is to power it sustainably by harnessing the power of the Conchagua volcano; and finance it through international Bitcoiners buying 'Volcano Bonds' (Brigida & Schwartz, 2022). Critics argue that the project will displace the local population of Conchagua. Bukele's government has recently enacted a law that makes it easier for the government to expropriate land if it is deemed to serve the interest of the public. The tax light, special economic zone of Bitcoin City, is by critics seen as yet another example of Latin American neocolonialism by libertarian foreigners. Journalists report that the available empirical material on special economic zones casts doubts on whether these kinds of special economic zones actually benefit the nations that adopt them (Linares 2021; Valencia 2022 & see Clarke 2022 for a wider regional perspective).

Michael J. Watts (2023) introduces his review of the historian Raymond B. Craib's recent book–'Adventure Capitalism: A History of Libertarian Exit, from the Era of Decolonisation to the Digital Age'–with a short discussion of Bitcoin City. Watts (2023) argues that Bitcoin City is yet another name in Craib's long list of libertarian projects aimed at creating enclaved geographies for stateless congregation.

Eric tells me that Bitcoin City is probably just vaporware (referring to software that is advertised but doesn't materialise). But he would like to see it happen. Eric doesn't see himself as belonging to any nationality–he has connections to several parts of the world–rather: Eric feels part of 'the Bitcoin family'.[63] Eric's face lights up with excitement as he discusses his dream of Bitcoiners buying a country together.[64]

Bitcoin can itself function as a form of 'cryptosecessionism', an infrastructure that enables individuals to secede from state-run institutions by exiting to virtual states through the use of cryptographic technologies (MacDonald 2019:63–64 as cited in Simpson & Sheller 2022). Following Isabelle Simpson (2021b, 2022a as cited in Simpson & Sheller 2022) we can think of the physical manifestations of such 'cryptosecessionism' as 'encrypted geographies', or hybrid enclosures (physical and digital) that are:

> [...]designed to provide an exit from the state or a path 'beyond politics' (Thiel, 2009), and to allow communities to exist and act primarily around a shared ideology rather than a shared geography. (Simpson & Sheller 2022:2)

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[63] Just as the cosmopolitan lifestyles of Uimonen's interlocutors mirror the transnational connections and cosmopolitan outlooks that internet development signifies (2001: 10), the Bitcoiners I met often portray themselves as just as borderless as Bitcoin itself, as well as talking about how Bitcoin aided them to be borderless.

[64] Eric's dreams have predecessors, there's the cryptocurrency micronation Liberland (situated in disputed land between Croatia and Serbia, founded by Roger Ver, a prominent early Bitcoin investor and influencer) (Brunton 197); 2020 MS Satoshi, a seasteading project aiming to construct a cryptocommunity on a cruise ship (Elmhirst 2021); Satoshi island in Vanuatu (Satoshi island 2021)

These ideas can be grouped together as a form of 'escape geography' (Brunton 2019:183) and fit aptly in describing Eric's imaginary of Bitcoin Beach. When we discuss the Bitcoin Beach-like projects spread around Central America, Eric hopes they will become a growing set of 'enclaves in which you can touch down, spend time with like-minded people and pay with nothing but Bitcoin'.

The Athena Bitcoin ATM in the entry at Olas Permanentes (left). The Chivo Bitcoin ATM inside Hope House (right). These are the two Bitcoin atms in El Zonte and the two places were Eric spends most of his time. Although he rarely uses the ATMs, because he rarely uses dollars.

Eric invites me to meet the other Bitcoiners in El Zonte. Even though they are initially suspicious of my presence[65], we end up becoming friends. I start frequenting their regular evening barbecues. Although it might seem a strange place to look, the continuity of the barbecues offers a good window into understanding the Bitcoiners through what they do, rather than only through what they say.[66] I will therefore try to describe the typical characteristics of a barbecue.

The barbecues often took place in Hope House's yard. The language spoken at these barbecues was English and Salvadorans were present at only a few occasions. Most attendees were men and every one of them was a Bitcoiner. Invitations were repeatedly extended to the people at Hope House, but they didn't show up while I was there (they generally had dinner at home with their families). With few exceptions, the only thing eaten at barbecues was steak with salt and

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[65] They're only half joking when they accuse me of being an agent of the state.
[66] However, a significant portion of what Bitcoiners do, is exactly to talk. See for example the barbecue described in 2.2.3. This is similar to Kelty's interlocutors, see (Kelty 2008:64)

pepper. People took turns bringing meat, which was usually bought at a supermarket in La Libertad or San Salvador. Before a barbecue, the discussion in the telegram group I shared with the Bitcoiners would concern how many people should take steaks out of their freezers. The meat was grilled, cut up into pieces on a large wooden board and then directly eaten from there by hand.[67]

The primality of the open fire and sharing stringy pieces of meat from a wooden platter with bare hands was not merely some sort of Lord of the Flies fantasy. It reflected a considered diet choice. Several of the Bitcoiners told me about the health benefits of consuming more red meat. In response, I would murmur something about whether this represented mainstream nutritional science and in response, one person would refer me to Chapter 9: 'Fiat Food', in Saifedean Ammous book, The Fiat Standard (2021).

In this chapter, Ammous argues that since the 1970s red meat has fallen out of favour in (U.S.) government dietary guidelines. Because of:

> industrial agricultural interests trying to increase demand for the high-margin nutrient-lite industrial sludge they wanted to convince the world could pass for food.

Ammous explanation is composed of what I recognise as staple traits of the explanatory style of Bitcoiner discourse. His major source is a book that has been:

> [...]ignored by the mainstream of academia and nutrition science, as [its] conclusions fly against the politically correct dogma taught in medical and nutrition schools in modern universities.

Mainstream academic science is discarded for being in cahoot with, not only the government, but also with greedy industries pursuing single-crop agriculture. The mass production of mono-crops is suggested to be a consequence of 'rising time preference'. This contrasts with a low-time preference approach that, according to Ammous, would manage land in a way that creates a healthy soil on which animals can graze. What does Ammous mean by a 'rising time preference'? According to Ammous, it is since the 1970s that recommendations for red meat declined and 1971 is the year of the Nixon Shock. This is the year when President Nixon unpegs the dollar from the gold standard, effectively leading to the replacement of the Bretton Woods system with free-floating *fiat* currencies (Graeber 2011:361). An origin myth of the dystopic Fiat System if there ever was one.

Fiat is, of course, in the very title of Ammous's book and a word that Bitcoiners use excessively. Fiat money refers to a currency that is not backed by a commodity (such as gold or silver) but merely by trust. In the popular imagination[68] of the Bitcoiners, this gives governments the power to print as much money as they like.[69] The resulting inflation is understood as an invisible

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[67] Hope House personnel also brandished pictures of steak barbecues on their Twitter accounts and during the Bitcoin conference an exclusive meat-only steak dinner was organised by Bitcoin Beach at a luxury hotel. One time a couple of surfers did the same. Meat-only barbecues had become somewhat of a local custom.

[68] When using terms like this throughout these parts I am not making etic truth claims for or against these things, I am simply describing them as part of the explanatory worldview of my interlocutors.

[69] Creating money, or printing money, is more complicated (and more decentralised) than this. It is premised on the collaboration of several different institutional actors, for a very brief overview see Graeber (2011:365)

tax on their populations to fund projects serving the political interests of the government. Since Bitcoiners embrace the possibility of monetary quantification of moral value (inspired by Austrian Economics)[70] (Brunton 2019:124-6), printing money is not only monetary debasement but also moral debasement (Brunton 2019:189; Graeber 2011:337).[71] Thus, increasing the money supply provokes anger from the Bitcoiners and leads them to question the arbitrary power that guarantees the legitimacy of monetary quantification of moral relationships (Graeber 2011:73 & 364-4).[72]

The term 'Fiat' would often come with the prefix 'dirty', as in: 'not having to touch dirty fiat currencies'. One time a couple of surfers got annoyed at one Bitcoiner–Tom–for refusing to eat at a restaurant that didn't accept Bitcoin. Tom explained to the surfers that they need to understand that he doesn't want to touch the dollar, even for paying with: 'it's blood money to me'[73]

The Fiat Standard is the sequel to, and in many ways the opposite of, the Bitcoin maximalist bible: The Bitcoin Standard (2018). Living on a Bitcoin Standard means only using Bitcoin as a currency and the promise of doing so is what has attracted Tom to El Zonte. Fiat is the antimatter of Bitcoin.[74] To try a tired staple of classic symbolic anthropological discourse: Fiat is taboo. Where being on a Bitcoin Standard denotes a sphere of purity, using Fiat denotes one of danger (Douglas 2001[1966]).[75] To my interlocutors, there's fiat money, there's fiat food, there's fiat science and fiat mindsets. Fiat is connected to short-sightedness, blind obedience and the mainstream. Threading carefully on soil nurtured with outdated structuralism, we can look at the denomination of things 'Fiat' as boundary maintenance (Barth 1998[1969]). The 'fiat' categorisation communicates a condensed story of what's wrong and right in the world and additionally is one of the many shared discursive idiosyncrasies that communicate your (ethnic) belonging as a Bitcoiner.

As mentioned in the introduction, these interlocutors are Bitcoin maximalists. They disregard Web3, NFTs and cryptocurrency trading as something for stupid tech-bros, greedy scammers or misguided sheep. The Bitcoin Maximalists call other cryptocurrencies – such as Ethereum or Tether or Cardano or Ripple – 'shitcoins'. According to them, these are (unlike Bitcoin) get-rich-quick ponzi schemes dressed up in 'Blockchain' lingo. Their negative attitudes toward cryptocurrency speculation can also be understood as a form of boundary maintenance (Barth 1998[1969]) , in the next section we will turn to an example that demonstrates this.

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[70] Important Austrian Economic thinkers are for example Ludwig Von Mises, Friedrich Hayek and Murray Rothbard. The connections of Bitcoin and the philosophies of such thinkers are noted in prior research (Maurer et al 2013; Dodd 2018; Swartz 2018)

[71] Bitcoiners follow Austrian Economists in advocating for money with intrinsic value (currency backed by a scarce resource such as gold or silver), Graeber writes about how debasement of currency backed by precious metal became a moral issue in Britain during the late 17th century.

[72] Graeber writes that in the US, the banking system has for hundred of years inspired paranoid conspiracies connected to the perceived ability of banks to create 'money out of nothing' (2011:364-6)

[73] Nixon's decision to float the dollar in 1971 helped pay for the war in Vietnam (Graber 2011:364)

[74] Reminiscent of a gold or silver-based currency, Bitcoin can, as we saw in the introduction, be understood as backed by an artificially scarce commodity of sorts

[75] Mary Douglas's (2001[1966]) classic work on Purity and Danger doesn't really fit into this typology as the Fiat/Bitcoin dyad rather deals with good/bad than ordered/disordered

(left) A Bitcoin t-shirt with the Times headline included in the genesis block of the blockchain and a text reading 'Freedom from Tyranny, Buy Your Bitcoins Today'. (right) A U.S. dollar bill stamped with 'Buy Bitcoin'

3.4 We're all going to be rich

It is the 9th of November and The FTX debacle is unfolding. Two days earlier, CZ, the owner of the largest cryptocurrency exchange in the world–Binance–announced on Twitter that his company would sell their holdings of FTX-affiliated assets. At this point FTX was also one of the largest cryptocurrency exchanges but after the Twitter announcement, users made massive withdrawals from FTX, leading to a liquidity crisis. Two days later, FTX and affiliated companies would declare bankruptcy. It would gradually be uncovered that Sam Bankman-Fried's exchange had been a castle made of sand (or FTT).[76][77] The collapse sent shockwaves through the world of cryptocurrencies. The Bitcoin price was tumbling in real time as I sat having breakfast with Eric, the Dutchman and some Bitcoiners that had just arrived to attend the upcoming Bitcoin conference.[78] It is one of the few times that I see my interlocutors looking at the Bitcoin price chart, only reaffirming their disavowal of using Bitcoin for financial speculation.

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[76] It is regular practice for cryptocurrency exchanges to issue their own 'exchange tokens' (pretty much their own cryptocurrencies), what Binance was unloading was their holdings in FTT, FTXs exchange token.

[77] At the time of writing, revelations and repercussions of the FTX crash are ongoing. The details of what happened with FTX was widely written about and can be easily looked up by the concerned reader. I won't go into it here because of lack of space. However, it is worth noting that it was not only a Twitter post that led to the bankruptcy of FTX, worries started brewing amidst revelations that were made by journalists days earlier.

[78] Bitcoin's exchange value went down from around 20k US dollars to 16k US dollars

The Bitcoiners are handling the news calmly. They are cracking jokes about Sam Bankman Fried being a vegan and reading out commentary from Twitter aloud. The event merely reinforces what they have been saying all along: 'Not your keys, not your coins'. If you let a crypto exchange handle your funds, eventually, you are bound to lose it. It also reinforces the ethos that thou shalt not indulge in gambling on cryptocurrency exchanges, or as they say for short, indulge in "shitcoinery". Someone talks about Sam Bankman-Fried's connections to the Democrats and the Clintons and posits that FTX might have been a cover-up to give regulators further public support in attacking cryptocurrencies. As regulated crypto exchanges, companies like Binance and FTX stand with one foot in the contaminated sphere of government and the other in the contaminated sphere of shitcoins. A newcomer in a cowboy hat laughs and says,

> CZ is a funny guy, you gotta admire the balls of practically bankrupting FTX through Twitter.

People don't react well to this joke, not necessarily because they have issues with CZs actions but because expressing affection for the head of Binance signals shitcoinery. The sensitive subject is changed. Instead, we start talking about tax avoidance, Covid-19 vaccine passports and guns. The cowboy hat says you can rent tanks in Texas.

People get excited about this. Eric says that they should do it if the Bitcoin price goes to 1 million. The cowboy responds:

> Hell, I'll rent it for all of you if it goes up like that, or when it goes up like that, in 20 years we're all going to be rich!

It suddenly becomes very quiet. Perhaps the cowboy's emphasis on getting rich shows his true colours. A friend tells me later that they don't trust the man:

> I feel like he could be a shitcoiner in disguise

This episode serves as an example of strong boundary maintenance (Barth 1998[1969]) towards cryptocurrency speculators. My regular observations of this shows that an understanding of Bitcoin that emphasises it as financial speculation is not embraced.[79] Swartz (2018) argues that two incompatible techno-economic imaginaries were connected to Bitcoin: 'infrastructural mutualism' and 'digital metallism'. The infrastructural mutualist vision emphasises the use of Bitcoin as a means of exchange and the 'digital metallism' vision emphasises the use of Bitcoin as a store of value (as in investing in gold). Swartz argues that the imaginary of 'digital metallism' largely won out. However, the same year Swartz's article came out, The Bitcoin Standard (Ammous 2018)[80] was released. In it, Ammous argues Bitcoin should be used as a means of payment.

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[79] For ideological reasons, people in capitalist societies tend to distinguish commodities from gifts (Parry & Bloch 1989: 9) and disguise the economic nature of money-gifts (Bourdieu 1977:171-3). Bitcoin maximalists can perhaps be understood as disguising personal financial gains of Bitcoin price movements, to serve their ideological notion of Bitcoin as a money infrastructure, rather than speculative investment.

[80] Saifedean Ammous' book was actually handed out to people by some visitors to El Salvador.

3.2 Paying with Bitcoin

In the introductory vignette to this thesis I tried to send Carolina–the taxi driver–an on-chain transaction to an off-chain *lightning* address. On-chain transactions are transactions that are made on the original Bitcoin blockchain and are the most secure, however, they take time (around 10-60 minutes).[81] Even when at their lowest, if you consider the awkwardness of standing around waiting for a transaction to be confirmed in a supermarket line you realise that anything above a minute is unfeasible for everyday payments.[82] To resolve this, everyday transactions are made on the lightning network, which is less secure, but faster (and cheaper).[83]

In the Bitcoin cafe that Tremčinský (2020; 2022a) studies, the transactions are the slow, on-chain ones.[84] Drawing on Parry and Bloch (1989), Tremčinský uses ethnographic examples to illustrate that these transactions aren't made out of convenience but should be conceptualised as an activity aiming to reproduce the cosmological- and social order.[85] Further, he shows how Bitcoin can be characterised as both a means of payment and as a good to be consumed itself; noting how community membership is constituted by the usage of Bitcoin and that, because of this, paying with Bitcoin distinguishes members from non-members.

Even if the lightning payments have less friction than the on-chain transactions in Tremčinský (2020; 2022a), opting to transact with Bitcoin was still difficult to understand from a purely economic perspective. For people that did not receive salaries in Bitcoin (or had all their savings in Bitcoin), there was the added ordeal and accompanying fees related to replenishing the Bitcoin you spent. I more than once found myself in the awkward situation of having run out of

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[81] The time depends on a variety of factors, such as how many people are trying to make transactions at the same time and the fee that you choose to pay (and the hash rate, but you do not want to get into that at this point). Moreover, transactions can get stuck entirely if the network is congested and you didn't pay a high enough fee for your transaction.

[82] This dilemma has a significant episode in Bitcoin history that I will not go into here (see Appendix 1) but suffice to say that there has been much disagreement between whether to dilute the security and original vision of Bitcoin for improving transaction times. These are the problems discussed by Swartz (2018) and were in ways overcome by adding a layer to the original Blockchain, this layer was the lightning network which makes small Bitcoin transactions feasible (time and fee-wise) by making them off-chain.

[83] The easiest way to use the lightning network is through a custodial lightning wallet (you can host your own lightning node and self-custody but it wasn't feasible to me). Aside from this there are certain security risks with lightning wallets. Because of this, the lightning wallet should be used as a spending account not as a savings account. Transferring money from your self-custody Bitcoin wallet (saving account) to the lightning wallet (spending account) can take up to hours (highly dependent on the state of the Bitcoin network) and costs fees. I did not use Bitcoin particularly effectively because of not having a considerable amount of Bitcoin and lack of habit (I transferred too small amounts too often), this meant that I lost a significant amount of money in fees by using Bitcoin.

[84] El Salvador is often framed as the first big roll-out and use-case of the lightning network and everyday payments are made through lightning, not on-chain. The conference I attended in the capital was titled: 'Adopting Bitcoin: A Lightning Summit'.

[85] Parry and Bloch (1989:24) separate between a sphere of long-term exchange and short-term exchange and argue that it is the first form of exchanges that reproduce the cosmological and social order. In Tremčinský's fieldwork (and in mine), the opposite is true.

funds in my 'spending account'[86] while paying in the company of Bitcoiners. Paying with cash at these moments felt more like an act of protest (against Bitcoiners) than it felt like an economic transaction.

There were also inconveniences with the scanning of QR codes, malfunctioning applications or confused vendors. At two tourist establishments in El Zonte it was seamless, but at other places you would often be met with a sigh and an eye roll and have to wait for someone to get someone that knew how to accept a Bitcoin transaction. Many Bitcoiners I knew actually directed their consumption practices towards the venues where it was easiest to pay with Bitcoin (restricting their freedom rather peculiarly for a group claiming to hold it so dear).

Others insisted on paying with Bitcoin at new places; these transactions were often 'ritualised' (as Tremčinský 2020 also notes). The payments were documented, filmed with smartphones and uploaded as content to various social media platforms. When a vendor did not accept Bitcoin, several of my interlocutors offered to tip in Bitcoin, using it as a chance to introduce the vendor to Bitcoin and to help in downloading the phone application required to receive the tip. In Tremčinský's fieldwork, Bitcoin payments are utilised as rituals to introduce new users (and thus new members to the Bitcoin community). My interlocutors referred to this as 'orange-pilling' (The Bitcoin logo is orange) and would enthusiastically share stories about such efforts.

Moreover, the social practice of paying with Bitcoin had explicit moral connotations—as in Tremčinský's (2020) ethnography. One time a newly arrived vlogger filmed a friend's Bitcoin transaction while commenting, 'Look kids, here's an idiot exchanging precious Bitcoin for fiat cigarettes'.

Respective to Swartz's two categories (2018), Tremčinský's (2020:38) delineates two separate spheres of exchange for Bitcoin: one is using Bitcoin as a store of value[87] and the other is using Bitcoin as a means of exchange. The aforementioned quote can be understood as a clash between the logic of these two spheres of exchange. However, the stance of the vlogger was atypical. In the context of Bitcoin being adopted as a legal tender in El Salvador, there was a rather widespread agreement that the current emphasis for the Bitcoin community was to increase the adoption of Bitcoin as a means of exchange.[88] The best way of doing this was through transacting.

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[86] The lightning network is what makes small Bitcoin transactions feasible (time and fee-wise), the easiest way to use the lightning network is through a custodial lightning wallet (you can host your own lightning node and self-custody but it wasn't feasible to me). Aside from this there are certain security risks with lightning wallets. Because of this, the lightning wallet should be used as a spending account not as a savings account. Transferring money from your self-custody Bitcoin wallet (saving account) to the lightning wallet (spending account) can take up to hours (highly dependent on the state of the Bitcoin network) and costs fees. I did not use Bitcoin particularly effectively because of not having a considerable amount of Bitcoin and lack of habit (I transferred too small amounts too often), this meant that I lost a significant amount of money in fees by using Bitcoin.

[87] Referred to as HODLing in the Bitcoin lingo

[88] Talking about her initial approach to Bitcoin, Noor, the CEO of Bitcoin Beach Wallet told me that because of her middle eastern family background, she had been accustomed to gold as a store of value. However, gold was an 'enclaved commodity' (Appadurai 1986:24), attached to family heirlooms such as wedding dresses and headbands, the gold was only removed and sold in last-resort moments of crisis. Contrary to the gold her mother had to leave behind when fleeing Libya in 2011, Bitcoin was a digital gold easier to transport. Envisioning Bitcoin as a hedge for future crises,

In 'orange-pilling' and other voluntary efforts to increase Bitcoin adoption, one can see an "outward-oriented missionizing" (Hannerz 1992:50) typical of subcultures (ibid:69). Money is, of course, very sensitive to network effects: who wants to use a currency that no one else uses? Introducing new people to Bitcoin in turn strengthens the Bitcoin network and its applicability as a means of exchange. [89]

Bitcoiners make visible the 'phatic labour' (Peebles 2021) inherent in everyday transactions with a particular form of money, and consciously repurpose this phatic labour to advance the sociotechnical infrastructure that their community is constituted through. It is in this way that Bitcoiners can be understood as a recursive public (Kelty 2008). The payment practices of Bitcoiners are one example of continuous phatic labour that facilitates the infrastructure, that facilitates the Bitcoiners as a 'public'. The phatic labour inherent in payment practices shows how we can extend the notion of a recursive public from merely being applicable to the small portion of programmers who maintain Bitcoin's open-source code (Azouvi et al. 2019).[90] Given the primacy of transactions for Bitcoiners, I would argue that characterising Bitcoiners as a 'recursive public' is more appropriately specific than simply seeing them as a translocal community, subculture, social movement or imagined community (Anderson 1983).[91]

However, simply making Bitcoin payments doesn't make someone a 'true' Bitcoiner. Bitcoin enthusiasts also make Bitcoin payments. While in practice this would make them 'Bitcoiners', my conversations with genuine Bitcoin advocates reveal hesitancy in determining whether these individuals can count as Bitcoiners. This hesitation clearly indicates that paying with Bitcoin does not automatically qualify Salvadorans as 'Bitcoiners'. Furthermore, the Salvadoran Bitcoin enthusiasts I spoke to were hesitant to label themselves as such. One participant expressed,

> I don't know if I can really call myself a Bitcoiner Bitcoiner you know, but, I like Bitcoin, I use it.

Conversely, foreign Bitcoiners generally rejected any gatekeeping practices, and Salvadoran Bitcoin enthusiasts often emphasised that they felt welcomed by true Bitcoiners in the Bitcoin community. However, both groups acknowledged a distinction. A Salvadoran Bitcoin critic asserted, "There are no Salvadoran Bitcoiners." I encountered several Salvadoran Bitcoin enthusiasts who made Bitcoin payments but did not actively engage with other Bitcoiners online. Conversely, the few Salvadorans

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Noor had been reluctant to use Bitcoin as money but through her experience in El Salvador and the project of nationwide bitcoin adoption, she had learned to approach Bitcoin as a means of exchange instead.

[89] The same is true for Kelty's interlocutors in their advocacy of settling for the same internet standards (2008:51) because of network effects.

[90] This paper shows that only a handful of users actually contribute to the discussion forums that govern the code repository of Bitcoin

[91] One should note here that this might not be generalisable to Bitcoiners overall. As previously mentioned, the Bitcoiners I interacted with in El Salvador were maximalists and there is a specific context to Bitcoin in El Salvador. One could even try to make the case that the joke of the previously mentioned 'vlogger' catered to another view of Bitcoin held more previously or outside of the context of El Salvador. Moreover, the term 'recursive public' should not as readily be applied to users of other cryptocurrencies.

who did identify as Bitcoiners actively participated in 'Bitcoin Twitter'. These engagements are forms of phatic communication (Pink 2016:80) that we can interpret as relationship-driven illocutionary acts which create a sense of belonging to a wider, external community (ibid:82). Bitcoiners repeated online jokes in real life as in-jokes, creating and upholding a shared sense of community through a 'continuum of participation' (Kozinets 2010:10) between online and offline worlds (ibid:15).

Perhaps it is a question of degree. Being a Bitcoiner or not should be perceived as a gradual continuum differing in the level of participation. The sudden decision to make Bitcoin legal tender in El Salvador is one instance in which groups on different parts of their Bitcoin journey are put in the same space. However–as evident from the difficulty of assessing membership for some people and the glaringly obvious ease with which you can ascribe the status of 'Bitcoiners' to others–somewhere along the route of this gradual continuum there seems to be a binary break, or at least a point of no return. The Bitcoiners I met shared experiences of falling down 'the rabbit hole', as they said. They interpreted my stated agnosticism toward Bitcoin as me being in a 'liminal stage' (Turner 1969) of just having begun to tumble down the rabbit hole. Perhaps the concepts of purity and danger (Douglas 2001[1966]) might apply nevertheless–as illustrated by one instance of anger provoked by me belonging to neither a sphere of Fiat nor Bitcoin. I will describe this instance in the following section and show how, while my interlocutors disavow portrayals of Bitcoin as a means of financial speculation, it is still speculative currency in Brunton's sense. A speculative fiction that imagines and narrates futures (2019:16).

(right) Bitcoiners boarding a 'Bitcoin' boat in Guatemala painted with Bitcoin logos and mottos such as 'sound money'. (below) A Mi Primer Bitcoin graduation ceremony in Usulután, El Salvador, attended by Mike Peterson, John Dennehy and local government officials.

(left) Group photo of Bitcoiners visiting Lago Bitcoin, Guatemala. Red laser eyes are the sign of a Bitcoin maximalist on twitter, someone from the group have added them to the photo. (below) Bitcoiners 'orange-pilling' a vendor in Guatemala in front of a German TV Team.

3.3 Speculating with Bitcoin

Speculating with Bitcoin might be seen as yet another practice that constitutes Bitcoiners as a community. When I asked one interlocutor what brought the disparate group of Bitcoiners in front of us together, he refused any common characteristic except that: 'we're here in El Salvador dreaming together', thus pointing to the social maintenance of Bitcoin as speculative fiction (2019:16).

It's a regular Bitcoin barbecue. Several conversations overlap each other. Eric wears a t-shirt with the Bitcoin motto 'Don't Trust, Verify', he's talking with a man wearing a t-shirt with a Segwit meme and another man wearing a t-shirt saying 'Bitcoin is dead' (with a figure underneath of the number of times media outlets have declared it dead).[92][93] From their corner I overhear the names of companies active in the Bitcoin space, comparisons of different coding languages, references to Taproot, Twitter debates over RBF- and the recent public exploit of a bug in the Lightning Network.[94] Spurred on by one of my previous inquiries, another set of men are discussing Austrian Economics texts they have read: Murray Rothbard, Ludwig Von Mises, Henry Hazlitt… I vaguely hear Nick refer to Keynesians as 'clueless smiling idiots'. Another man urges Nick to read Atlas Shrugged.[95] For some reason, someone somewhere is citing Gödel's incompleteness theorem, and the Dutchman looks at this person in awe:

"This is what I mean, only among Bitcoiners will you hear intellectual stuff like this"

The conversation stirs down as a few people leave. In an intermediate silence, a mischievous person addresses the remaining group and asks,

"What would you prefer? A nocoiner girlfriend, a shitcoiner girlfriend or a Bitcoiner girlfriend?"[96] he first directs the question to me and I respond that it doesn't really matter, but the mischievous man isn't satisfied,

"I knew you would say that, that's such a cop-out!"

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[92] Segwit was a soft fork change (update) to Bitcoin that was implemented during a tumultuous period of Bitcoin's history. Disagreements during this period eventually led into a partitioning into Bitcoin Core and Bitcoin Cash in 2017. Bitcoin Cash is a small off-shoot to Bitcoin, and if Ethereum is seen as a 'shitcoin', Bitcoin Cash is seen as something worse. Here perhaps the notion of purity and danger comes in even more handy to explain the verifiable 'ick' that my interlocutors reacted with at even the mention of Bitcoin Cash.

[93] See: https://99bitcoins.com/bitcoin-obituaries/

[94] Taproot is a subsequent soft fork to Bitcoin (implemented november 2021).RBF is short for Replace-By-Fee, the conversation took place in november 2022 when a change to RBF-configurations in a coming update to Bitcoin Core (0.24) spurred debates about RBF (See Shinobi 2022a). After an argument broke out at one of the barbecues a social policy of no RBF-debates was enacted (as a joke). A hacker called Burak has twice exploited bugs in the Lightning Network built on top of Bitcoin core, observers debated whether his public displays of such bugs should be characterised as reckless or as benevolent maintenance that urges Lightning developers to be more careful (See Shinobi 2022b)

[95] The idea of a libertarian enclave can be understood as going back to Galt's Gulch in Ayn Rand's 'Atlas Shrugged', a fictional valley that temporarily became a real one in 2013: as Galt's Gulch Chile. Like the other projects mentioned, it was marketed as a libertarian refuge, from a declining America and had similar projects as its neighbour (Bodzin 2014).

[96] A nocoiner is a person that is against cryptocurrency in general

"Well, I have told you guys before. I mean I am kind of a nocoiner, right? I am only a temporary Bitcoiner for the purposes of my research... I like certain aspects of Bitcoin but I am not a *real* Bitcoiner."

A Bitcoin Core developer throws his hands up in the air at my response and says:

'Ok, it is time for me to leave', he further explains that he has had this argument too many times and has no more time to waste on people like me. The man had expressed annoyance at me before. Feeling agitated I can't help but ask him what it is about me that provokes him so much. The man looks me dead in the eye and says,

"Look, there's two possible futures: Bitcoin or CBDCs. Good or evil, pick your fight", then he gets up to leave.

CBDC is short for Central Bank Digital Currency and refers to central banks adapting the Blockchain technology that powers Bitcoin and other cryptocurrencies to use it themselves.[97] A world of CBDCs is a cultural nightmare for the Bitcoiners. For them, CBDCs refer to a dystopic realisation of the fears of the cypherpunks; it represents that 'control society' imagined by Gilles Deleuze in a short piece from 1992. Here, Deleuze postulates an ongoing transformation of the disciplinary society (In Michel Foucault's sense) to a 'control society'. He specifically mentions the transition from disciplinary societies in which minted money locked in gold as a numerical standard, to societies of control in which floating rates of exchange instead offer the possibility of constant modulation of standards (1992:5). CBDS could, in theory, give central banks increased room for manoeuvre in economic governance through the possibility to modulate value by issuing helicopter money directly to people's accounts (increasing the monetary base through changing numbers in a database). This idea plays into Bitcoiners' fears of money printing and inflation. Deleuze draws on his friend Felix Guattari's depiction of a city of control in which a person is free to move thanks to an electronic card but:

> the card could just as easily be rejected on a given day or between certain hours; what counts is not the barrier but the computer that tracks each person's position-licit or illicit -and effects a universal modulation. (1992:7).

CBDCs could, in theory, also offer the possibility to freeze people's funds (perhaps for certain hourly periods every day or for a penal period of a fixed set of weeks) or reject certain transactions for certain individuals (people who haven't made gym membership purchases can't make ice cream purchases).[98] Deleuze sums up the logic of the control society:

> The numerical language of control is made of codes that mark access to information, or reject it (1992:5).

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[97] As an example, the Swedish central bank's E-krona project is a CBDC project. It should be obvious by now that Bitcoiners do not like central banks. It should also be clear that if it's not Bitcoin or gold, they prefer cash (and the anonymity it offers) rather than digital money.

[98] It could also, in theory, give central banks increased room for manoeuvre in economic governance through the possibility to modulate value by issuing helicopter money directly to people's accounts (increasing the monetary base through changing numbers in a database). Thereby playing into Bitcoiners fears of money printing and inflation.

Brunton lends the various notions of 'escape geography' that we brought up before to conceptualise what he sees as an 'escape temporality' inherent in digital currencies such as Bitcoin (2019:181 & 183). He argues Bitcoin is a dystopian currency: 'established to speculate on imminent collapse' (ibid:151, see also 196-197). In their book 'Anthropology of the future', Bryant & Knight (2019) are concerned with different vernacular timespaces, different types of experiential time as forms of temporal spaces.[99] Bryant & Knight see speculation as a timespace characterised by crisis, when "expectations are shattered and the present becomes uncanny because we seem stuck in it, unable to anticipate the next day" (2019:103-4).[100] As a highly uncertain future laid out by perpetual press conferences deciding if you could go to work, leave your house and how scared you should be of dying this week: an example of a recent crisis producing an uncanny presence springs to mind.

Covid-19 weighed heavily on my Bitcoin interlocutors' decisions to move to El Salvador; several of them found Bitcoin while stuck at home in a lockdown, starting to doubt the goodwill of their governments. The 'uncanny present' of perceived crises makes it a time particularly ripe with rumours, conspiracies and "the emergence of persons who claim access to the unseen" (Bryant & Knight 2019:92).

Long before Covid-19, Jeremy 'saw the writing on the wall' and decided it was time to do something. He got involved in the Laissez-faire project in Costa Rica, one of numerous efforts to build a libertarian free zone. After this failed, he retreated to a former Soviet country, to evade a state he now saw as slipping into totalitarianism.

"Ironic, isn't it?", he tells me in his penthouse apartment in a gated community in San Salvador. The reason he is here now is that the country he was in started getting 'too totalitarian' for Jeremy's taste during Covid-19. El Salvador adopted Bitcoin and got rid of their Covid laws. As a libertarian Bitcoiner with a long affinity for the cypherpunks, Jeremy decided to pack his bags and leave for El Salvador together with his family. Today he helps other people 'Escape to El Salvador', as Jeremy calls his business. On the blog 'Escape to El Salvador', one of Jeremy's clients has written an article that describes an ongoing exodus of Covid-19 refugees escaping to El Salvador from Canada and other countries. They liken the new immigrants in El Salvador to the pilgrims who dared board the Mayflower. I'll quote Jeremy at length about what he says about the exodus:

> But where do you escape to? You have to find a place that you feel embodies freedom and embodies this future
> state of what our society could be like because this is really what it is. This is the sovereign individual thesis

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[99] Their term 'timespaces' is highly similar to 'timescapes'. Laura Bear (2016:496) summarises it as follows: "May & thrift 2013 define timescapes as networks of representations, technologies, disciplines and rhythms in time. It consists of both human and nonhuman elements (Roy 2012). The term timescape is meant to evoke the mutual interdependence of time and space (Massey 2005)." (sources as cited in Bear 2016).
[100]They relate this to their own ethnographic work on speculation in Greece related to the discovery of natural gas reserves in the Mediterranean and on Wezkalny (2015)'s ethnography on oil speculation in São Tomé and Príncipe. Both these ethnographies emphasise the strong connection between speculation and rumours, including conspiracy theories (2019:93-94 & 99). In the energy sectors of Greece and São Tomé and Príncipe, local people and corporations financially speculate on indeterminate futures fueled by rumours. Both cases are characterised by protracted economic crises in which 'locals feel that they have very little to lose' (2019:99).

playing out. You're voting with your feet, you're going where you're treated best, and you are choosing the future that you want to see and supporting that and making it a reality through your action, right? So my being here is a vote for a particular kind of future because I could be living in a different country, right? If I wanted to see The future of the People's Republic of China, then I would move to Beijing. That would be my vote. But I'm not voting for that future, I'm voting for this future.

In Jeremy's narrative, bodies and geographical space are conjoined with Bitcoin in the creation of futures (Oomen et al. 2022:256), thus fusing both escape geography and escape temporality (Brunton 2019:183). The human geographer Lynch (2017) has argued that discourse promoting the idea to 'vote with your feet' (a term often used by my Bitcoiner interlocutors) should be understood as a form of 'utopian enclave libertarianism' that emerged after the financial crisis of 2008. In his involvement in Laissez-faire-city in Costa Rica, Jeremy was engaged with these ideas prior to 2008 and as Simpson & Sheller (2022:1) points out, libertarian kinds of secessionist projects have predecessors from the late 60s.[101] Jeremy advocates for direct participation in sculpting the future by 'voting with your feet', a phrase that is also used when discussing whether to place your holdings in Bitcoin or Fiat or another cryptocurrency. You invest, with your body and your accumulated capital, in the future you want part of.

Covid-19 and Bitcoin are the two main conversational topics for the Bitcoiners in San Blas, a gated community about 25 minutes from El Zonte. Covid-19 represents the crisis of the past and Bitcoin represents the speculative future (Bryant & Knight 2019:103-4).[102] However, Covid-19 was seen as part of a larger problem, part of a more general, slowly unfolding dystopia. Bitcoiners theorised Covid stimulus and vaccine passports as part of a larger regime of control relating to the rollout of CBDC infrastructures (Deleuze 1992). For the Bitcoiners' there's a spectre haunting Europe, the spectre of CBDCs. Because of this, I was told that Europe was heading for the dark ages.

Returning from another interview in San Blas to my temporary home in El Zonte, I have a beer with Eric. I admit to him I find some of these things quite far-fetched, reiterating some things I have been told throughout the day. I am hoping for a voice of cultural familiarity disguised as reason when I ask Eric if he really believes Europe is heading toward the dark ages.

"The dark ages... Maybe... It [Europe] is definitely declining." Eric is doing his usual thinking expression which includes an incessant bopping of his head and squinting of his eyes while scratching his chin. As his brain has finished computing he says:

"Technologically, no. But in other ways, yeah actually."

"And El Salvador is the beacon of hope in all this darkness?" I reply.

"Yes", the stranger in front of me says.

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[101] See for example the 1968 Operation Atlantis (an attempted libertarian nation in international waters on a sea platform close to the Bahamas (Brunton 2019:181) and the 1972 Republic of Minerva (a libertarian micronation on an artificial island in the South Pacific Ocean) (ibid:182).

[102] It's not hard for me to find the material to make this point: I have a seemingly endless amount of quotes positing pandemic measures as what led people to understand the importance of Bitcoin. I haven' been able to include these because of space limitations.

3.5 Conclusion

In a general sense, all forms of currency deal with the future: from credit, coins, dollar bills, and certificates to Bitcoin—they are all worth something because someone trusts that they can be exchanged for something else in the future. Opening up the black box of any medium for transacting can show the intricate relationship of trust and futuring emphasised by several sociologists (Simmel 1950; Luhman 1979; Lewis and Wiegert 1985:969; Misztal 1996).[103] Giving someone currency is asking them to trust in a particular future and accepting the currency is an act of anticipating said future; a practice so commonplace that it fades into the everyday. However, with Bitcoin, the anticipatory quality of currency is made visible (Larking 2013).

Bitcoin is a form of speculation (Brunton 2019:16) fueled by experiences of uncertainty and anticipation of future crises (Bryant & Knight 2019:103-4; Brunton 2019:203; Swartz 2018:644). El Salvador is framed by many Bitcoiners as "an engaged withdrawal" (Virno 1996b:197 as cited by Tremčinský 2022a:81-82); comprising both an escape temporality and an escape geography from a surveillance future (Brunton 2019:183). As printed on the t-shirts they sell in Hope House, El Salvador becomes 'Bitcoin Country': a safe haven from Covid-19 measures and monetary crisis.

Transacting demonstrates how Bitcoiners can be characterised as a recursive public. Strengthening the sociotechnical infrastructure that includes both the community and the Bitcoin infrastructure is a means of creating an alternative to a future of CBDC dystopia; Bitcoin is hope. We can understand the phatic labour of payment (Elyachar 2010:453; Peebles 2021:8; Tremčinský 2020) and 'outward-oriented' missionising (Hannerz 1992:50) of Bitcoiners as performative pursuits of bringing about a potential future or as 'materializing the otherwise-than-actual' (Bryant & Knight 2019:137). As Tremčinský also notes (2020:38) the two techno-economic imaginaries of 'infrastructural mutualism' and 'digital metallism" are not incompatible (as Swartz (2018) claims). To cite Swartz (2018:644) with a slight modification, my interlocutors are:

> Concerned with a self-prophesied apocalyptic rupture, when, perhaps, [*both*] the mutualist infrastructure will be called into service [*and*] their investments in digital metal will pay off.[104]

Let's now shift our attention from this foreign group of Bitcoiners and, in ways, return to El Salvador. The following chapter will introduce a further historical contextualisation of El Salvador. It might seem funny to introduce this so late in the essay, but this is because it is first when looking at Salvadoran social imaginaries of Bitcoin that the country's history comes into the fore. The

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[103] Trust is a social technique to simplify prediction of the future and inversely social trust is intricately tied up to particular conceptions of the future

[104] I have taken up the concept of boundary maintenance several times throughout this chapter. Tremčinský's view of Bitcoin consumption (paying with it) as functioning as a form of distinction suggests that payments can also be seen as a form of boundary maintenance. While it is a boundary maintenance between them and the state, there is a very interesting tension here between the need of advancing Bitcoin adoption (often involving making payments more mundane) and the risk of diluting the purity of Bitcoin's *moral- and technical order* (Kelty (2008: 56). Bitcoiners sometimes reflect upon this tension and resolve it by technomaterialist views of what Bitcoin is. Still, the tension in El Salvador between furthering adoption and dilution is a fruitful avenue for further research.

country's history serves as a justification for the necessity of Bitcoin and, through rumours, comes to haunt imaginaries that are critical towards Bitcoin.

4 Bitcoin in El Salvador

4.1 Gabriel's story

At Gabriel's insistence, I am trying to identify the taste of 'wilderness' in the organic chicken he has just served me. We sit in the garden of his new beach house in the San Blas condominium in El Salvador. In contrast to Jorge (ch. 2), Gabriel did leave El Salvador for the U.S. but he is back now and believes that Bitcoin can offer new possibilities for a new generation of Salvadorans. Inspired by the Hope House project, he tells me how he brought two surfboards back from the States:

> If I can find a teenager that maybe wants to learn how to surf, a teenager that doesn't have any adult role models, I can be that role model for him and keep him out of trouble.

Our conversation is interrupted by his wife, from the U.S., who hands him a phone, saying: "Can you just confirm to this woman that I can speak on your behalf?". In the background, I see their two young boys – nicknamed 'The Tigers' for their ferocious hyperactivity and their messy mullets. The tigers are unleashing havoc back in the living room. As Gabriel leaves to speak on the phone, the oldest of the tigers crawls up on the table I am sitting at. Kevin is bilingual. He likes to surf and to run after the garbage truck. He helps me practise my Spanish while frantically flipping through the pages of my notepad–pretending to read. Kevin's childhood is rather different from his father's. Gabriel was born in one of the worst war zones of El Salvador's civil war; Suchitoto. Gabriel tells me about his memories, from when he was just 5 or 6 years old–about the same age as Kevin is now–of how the government death squads killed most of his family members.

These death squads were a feature of the war that broke out after more than a hundred years of- extreme economic inequality and a political rule dominated by a small land-owning class (Pelupessy 1995:5; Moodie 2010:1 & 23 & 28); or what the social scientist Gary Bland called "a self-serving oligarchy allied with a praetorian military" (1992:165). Starting in the late 70s[105] and ending first in 1992, El Salvador's civil war was horrendously brutal. When the war ended, 75 000 Salvadorans had been killed and thousands more had been tortured and disappeared. According to the 1993 report by the UN Truth Commission, the government was responsible for over 85% of these atrocities, 5% was committed by the FMLN (Buergenthal 2021:529). Characterised as one of the last battles of the cold war (Moodie 2010:1), the United States provided 6 billion dollars in

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[105] Exactly when it became a civil war is hard to ascertain. Perhaps it was in 1977, when the security forces of newly elected president General Romero killed more than hundreds of civilians protesting electoral fraud (Stanley 1996: 110). Perhaps it was in the following 1979 coup d'état in which a military junta deposed Romero. Perhaps 1981 – when in the aftermath of broken promises of change and violent repression by this junta – FMLN (Farabundo Martí National Liberation Front) began their insurrection against the military government. Or perhaps, the war had been brewing since the peasant uprising in 1932, when the state reacted with murdering communist party leader Farabundo Martí and some ten thousand other Salvadorans; in the genocide known as La Matanza (Moodie 2010: 24).

economic, military and covert aid to the Salvadoran state fighting the communist FMLN (Robinson 2003:89).

At the height of the war–during the 1980s–half a million Salvadorans (over 10% of the population) fled to the US (Menjívar and Cervantes 2018). Many of the people that fled were adolescents, sometimes without parents. Many of these ended up becoming teenagers in Los Angeles in the late 80s, a place and time of intense gang activity. Both of El Salvador's infamous rival gangs: MS-13 (Mara Salvatrucha) and 18th Street gang were formed in Los Angeles during this period. MS-13 was initially formed to protect Salvadoran immigrants from more established gangs in Los Angeles (Fogelbach 2011: 420). When El Salvador's civil war ended in 1992, there were mass deportations of US-Salvadorans to El Salvador. A new U.S. immigration law in 1996 and zero tolerance policies toward criminality lead to gang members–raised in the streets of Los Angeles–suddenly finding themselves deported to a country they barely recognised (Zilberg 2004:761; Coutin 2007:17-40). A country that in the aftermath of a twenty-year-long civil war didn't have a functioning police force but instead, had a lot of guns.[106]

The 1992 peace accords were followed by neo-liberalisation and structural adjustment programs (Moodie 2010:41-45). There wasn't much done to redistribute land or remedy economic inequality.

"The 1992 peace accords ended the shooting, but it did not initiate an era of greater social economic justice" wrote anthropologist Leigh Binford (2002:205).

"They did not even end the shooting" is Ellen Moodie's comment on this, eight years after (2010:40).

Moodie's book–"El Salvador in the Aftermath of Peace"–is based on four years of fieldwork in El Salvador between 1994 and 2008 (Moodie 2010:10). It explores how many urban Salvadorans began to talk of the peace as worse than the war (ibid:2).[107] The levels of violence in the years after the war matched or surpassed the levels of violence during the war, and emigration to the U.S. continues to this day (Galdame 2023).[108]

As a young survivor of the war, Gabriel grew up in an orphanage in Soyapango: the place that later would become the bull's eye of El Salvador's gang problem. Gabriel had a hard time envisioning a future for himself in the country, so like many other Salvadorans, Gabriel crossed the border to the U.S. (by foot) in search of new opportunities. He managed to find a job in construction. He gratefully embraced his new country and tried to integrate himself as best as possible. For a long time, he wanted to ignore his past. When the woman he married in the U.S. suggested they move to El Salvador with their two young boys, he was reluctant. In his peers in

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[106] Moodie argues that it is too simplistic to explain the issue with criminality through the deportation of Los Angeles gang members (2010: 182), rather it is a complex array of factors (ibid: 40; 48) contributing to a 'perfect storm' (Menjívar and Cervantes 2018). However, since my goal is to situate my fieldwork in the contextual worldview of my interlocutors I still include this narrative here – since it was the popular explanation of my interlocutors.

[107] The director of the University Institute of Public Opinion said that based on polls, Salvadorans have become more alarmed about crime than they were worried about the war in the second half of the 1980s (Moodie 2010: 46 & 47).

[108] As of 2021 there were 2.5 million Salvadorans living in the U.S (U.S Census Bureau 2023).

Soyapango, Gabriel told me he had seen not only monetary poverty but also a poverty of mind: a sense of resignation, hopelessness and narrow-mindedness.

> Maybe if you grow up like that, cut off from the rest of the world, you can't imagine anything outside of Soyapango, Gabriel suggested.[109]

Some weeks before Gabriel and I spoke, president Bukele enacted a siege of Soyapango, deploying 8,500 soldiers and 1,500 police officers with the mission of apprehending every single gang member in the city (Fernandez 2022). This is part of what Bukele calls his 'Territorial Control Plan' and was made possible by the ongoing 'State of Emergency' that was issued by the government in response to a sudden escalation of murders.[110] The 'state of emergency' has led to the suspension of civil liberties: suspects can be arrested without explanation and are deprived of the right to a legal defence (El Faro 2022b). As such, it has attracted a lot of criticism from international organisations (Human Rights Watch 2022; Amnesty 2023; OHCR 2023) and media (Brigida 2023; Phillips 2023; Lauvergnier 2023), highlighting the arbitrary nature of the arrests and inhumane conditions for the detained. Bukele's party–Nueva Ideas–is certainly not the first party to be 'tough on crime' (Coutin 2007:168-74; Moodie 2010:203-4) but this time it seems to have worked. The drop in crime during Bukele's presidency has persisted to the extent that El Faro–the same newspaper that broke the news about gang negotiations–has acknowledged the gang problem in El Salvador as solved (Martínez et al. 2023). A Salvadoran anthropologist–Juan Martínez d'Aubisson–has studied gangs in El Salvador and fiercely criticised Bukele's policies. But recently, he announced the gang problem as practically over, claiming the Maras have disappeared in El Salvador (Martínez 2023). It is now safe to walk the streets of El Salvador in a way that was unheard of before, my Salvadoran interlocutors made this clear.

 When I spoke to Gabriel, the city of his childhood was still filled with soldiers. Even though he is a Bukele-supporter, he says he has sympathy for the gang members. As a twelve-year-old in a Soyapango orphanage, Gabriel used to feel as if he had no future. Back then he was heading in the wrong direction:

> You have to adopt this rough and intimidating mentality. You build this facade of toughness… so the other kids fear you. Otherwise, they'll attack and fight you… We all wanted tattoos. I wanted them all over my body. I used to dress like gang members back then.

When Gabriel tells me about his youth his eyes are sad and his voice is woeful; he seems in pain thinking about those teenagers in Soyapango that are right now reliving his past.

> As a kid at the bottom, you can't see past becoming a drug dealer, you know?

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[109] See also chapter 5 of Ellen Moodie's ethnography of post-war El Salvador in which she interprets contemporary crime stories as being about a loss of future and disillusionment in the state of things after the peace (2007:139-168)
[110] After a peaceful period, 62 homicides were suddenly committed in a single day. 27th of march, 2022

Gabriel tells me about how he used to cry at night, worrying that his younger brother would get murdered before even turning 13. At one point, Gabriel and his friends were falsely accused of theft and put in jail for three days. The conditions in jail scared him and he realised the road he was on led to nowhere but the hospital, the jail, or the ground. Eventually, an evangelical church helped divert himself and his younger brothers from a path of crime. Gabriel found God.

Gabriel did end up moving back to El Salvador. Now, when he speaks of Bitcoin he is brimming with excitement; it is hard to capture in a single quote but the way he talks about the Hope House project and his visions of El Salvador as Bitcoin Country evinces a strong sense of hope. Hope is also a word that Gabriel uses a lot. He tells me that having a sense of optimism about the future can throw a spoke in the wheels of Salvadoran cycles of poverty. He constantly refers to the next generation of Salvadorans and, with eyes full of awe, tells me about his eighteen-year-old nephew who is saving money in Bitcoin for the future. He also tells me about his San Blas neighbours who are foreigners that have moved to El Salvador because of Bitcoin. Gabriel never imagined people would move voluntarily to the country he grew up in and is moved by how these foreigners envision a bright future for El Salvador as 'Bitcoin country'.

When Gabriel goes to the kitchen, his wife leans over and whispers to me:
'It's a bit cultish right? The whole Bitcoin thing? I don't see how it could achieve the things he's talking about.'
'Why are you whispering?' I ask her.
'Well, I don't want to... you know, he seems so full of hope now!'

We can interpret Gabriel's wife as expressing awareness of the performative orientation to hope. 'Hope is a way of virtually pushing potentialities into actuality' and 'the pursuit of materializing the otherwise-than-actual' writes Bryant & Knight (2019:134 & 137).[111] As similar to the logic of the Hope House project, hope itself is understood as a means of social change.

As well as providing a historical context, the case of Gabriel (as illustrated in the story I have told here, and informed by further interaction with Gabriel) introduces the main themes of what will be discussed in the rest of this thesis.

First, his emphasis on Bitcoin's relation to hope and its relation to surf and Christianity shares the logic of the Hope House project (which we took up in the first chapter). For Gabriel, Hope House/Bitcoin Beach becomes the quintessential 'solution' to El Salvador's problems. In Gabriel's sentiment, we see how Bitcoin extends in its connection to a national imaginary related to

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[111] Byant & Knight (2019) relate the performative emphasis of hope to social science literature on financial forecasting. It has been noted that prediction and control collapses onto each other as speculation becomes a performative act, creating the very future it aims to predict (Graeber 2011; see also Hong 2022). This self-referential condition is evident in Lee's (2022) ethnography of cryptocurrency speculation, in which his interlocutors see certain statements about the future as being constitutive of that future. Bryant & Knight (2019) explicitly refer to Holmes' (2013) conception of the economy 'as a field of communicative action' where linguistic statements have the power to alter economic markets (2013: 9-10 as cited by Bryant & Knight 2019: 146). Similar arguments about economic performativity can be seen from other scholars in economic anthropology (Appadurai 2015; LiPuma 2016; Leins 2022).

El Salvador's history and the current 'Nueva Ideas' of President Bukele. Gabriel frames the past as one of futurelessness, and the present as one full of possibility.

Gabriel suggests that his peers in Soyapango not only suffer from monetary poverty but also 'poverty of mind'. In relation to the imagining of future possibilities, the idea of 'lowering time preferences' resurfaces here. His idea that there is an increasing sense of hope for the future is supported by recent national opinion polls from IUDOP (Instituto Universitario de Opinión Pública):

> "Cuando piensa en el futuro del país, ¿qué es lo primero que siente, esperanza o temor?"
> Percentage of respondents answering 'Esperanza' (hope):
>   2015: 41%   2018: 54%   2019: 55%   2021: 65%   2022: 76%[112]

However, considering the historical context of El Salvador, we should add to it that, completely unrelated to Bitcoin, El Salvador is currently experiencing a fairly unique moment of a lowered threat of violence. As Ellen Moodie's ethnography illustrates at length, the perception of violence in El Salvador put people in a precarious existence in which future aspiration became fraught with practical and emotional difficulty (2010).

4.2 Connecting to the network of Bitcoin(ers)

According to Gabriel, Bitcoin will not only bring many new opportunities to the country, but it can also become a sense of pride that enables El Salvador to be related to something else than its violent past: "If you google back in 2014, it would [be] first or second place on the most killings in the world."[113]

However, according to Gabriel, Bitcoin is now changing the national image. Now, when someone mentions El Salvador to foreigners they instead start to talk about it being the first country in the world that adopted Bitcoin. By doing so it attracts foreigners, like his neighbours. He sees these foreigners as both evidence of- and as an aid to expanding future possibilities for El Salvador. Jorge Valenzuela shares this sentiment:

> "When people tell me they want to go to the US, I tell them to look at all the [US] tourists coming here, they pay a lot of money… just to be here! You know. So I tell them, you should be happy you're from here. If you go over there [to the US] you're just going to work for someone else, the real American dream is here, here in the community."

In line with the material-semiotic approaches to futuring that Oomen et al. (2022:256) review, here Jorge draws on the actual presence of US bodies as a material to draw virtual futures into the

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[112] The question was not included in polls for 2016 and 2017.
See: Table 92 in IUDOP 2022; Table 129 in IUDOP 2021; Table 92 in IUDOP 2019; Table 83 in IUDOP 2018; Table 68 in IUDOP 2015.
[113]El Salvador has been called the homicide capital of the world (Watts 2015), with a yearly frequency hovering around 60 murders per 100 000 people.

present (Sneath et al. 2009; Bryant & Knight:134) and constitute El Zonte as the place for dreams rather than the U.S.[114]

Of course, El Zonte has seen international tourists come long before Bitcoin, because of surfing. Tourism is already a mainstay of El Zonte's economy. However, Jorge claims Bitcoin is bringing more people to El Zonte: 'lots of them'. There's an expectation here about Bitcoin connecting El Zonte to the world that can be related to Ferguson's anthropological study of the Zambian Copperbelt (1999):

> "In its "Industrial Revolution" era, it was copper that connected Zambia to the world. The world needed Zambia's copper, and it was copper that put the new nation on the economic world map [...] But copper not only connected Zambia economically, it also provided a vivid symbol of a specifically modern form of world connection. The copper wire bars produced by Zambian refineries literally did connect the world, via telephone and power cables that were forming a rapidly ramifying net across the globe." (1999:242)

In the idea that Bitcoin is connecting El Zonte to a global grid, globalisation is associated with symbolic values of national pride, new possible futures, and material prosperity. Gabriel posits El Salvador's Bitcoin brand as an economic resource. In another discussion, he likens Bitcoin City to Dubai and argues that Bitcoin projects can be leveraged as an alternative to export resources such as petroleum or precious minerals.[115]

When I ask Jorge whether more tourists might become a problem, he gives me the same baffled response as most locals in El Zonte give me,

"No? It's business"

The hope that Bitcoin would bring more paying tourists to El Zonte was the first thing mentioned by locals who had positive sentiments about Bitcoin.

Another noted benefit is that the Bitcoin Beach brand has worked like Zambian copper wire to hook up El Zonte to an international network of Bitcoiners, meaning a network of rich internationals eager to donate funds to initiatives catering to Bitcoin.

We have already heard about Hope House successfully securing donations from one donor. This donation has benefited the community through Hope House's community programs (many people's children frequented the activities at Hope House). Parts of it were also redistributed during Covid-19 when lockdowns and a decrease in tourism offered an existential threat to people in El Zonte. If people were willing to, Hope House provided people with a small monthly sum in Bitcoin.[116]

However, through Twitter, the Bitcoin Beach brand has also been leveraged to acquire crowdfunding from the overall Bitcoin community to individual (Bitcoin-accepting) vendors in El Zonte. The obvious example that springs to mind is that of a couple accepting Bitcoin payments for

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[114] For example, they quote Groves (2017:29): "anticipation is dependent on the capacity of bodies and of socio-technical apparatuses, distributed through the environments of social action"

[115] Gabriel's reference to Dubai as an economic resource is because believes that the United Arab Emirates reinvented themselves into a tourist destination in anticipation of running out of oil.

[116] Which they were meant to spend at stores accepting Bitcoin, we'll come back to this later

minutas (sweetened shaved ice), sold in a drag cart they pulled along the beach. They have acquired a significant amount of donations through Twitter. Aside from the money, they have gained some fame. Their minutas cart has been a regular feature in news reports, documentaries and amateur videos produced about Bitcoin Beach. The woman was especially delighted by this. Being from a poor working-class background, she explained to me she felt a new sense of pride and an ability to be a role model for other minutas sellers. Such vendors throughout Latin America had contacted her through social media to show support and say that they had been inspired to do the same thing. Another oft-cited example is Bitcoin Smiles. A Salvadoran dentist in El Zonte who provides dental care to elderly people, financed by crowdfunding from the international Bitcoin community.[117]

How the roads look above the main road of El Zonte.

In rainy season, it is sometimes impossible for the shared truck children use to take to school to travel on this road. An infrastructural project sponsored by the U.S. (FOMILENIO II) was supposed to remedy this but the planned roads has yet to materialise.

4.3 Competing for waves, competing for land

The lady selling minutas tells me that a lot of people in El Zonte are jealous of her. She doesn't care about these people and explains to me that a lot of people don't like seeing someone who is supposed to belong at the bottom, do better than them. However, this jealousy can also demonstrate how new flows of Bitcoin capital are unequally distributed, which might exacerbate existing inequalities. When I mention the word jealousy to Jorge, he laughs and answers: 'Oh yes, a lot of jealousy in Zonte'.

As we keep talking Jorge admits that the *local surfers* can become annoyed at the increasing number of tourists:

"[...]because you know, it can become a lot of competition [for the waves], [it can] become too crowded on the beach, but with Bitcoiners it's good because..." Jorge grins widely before he continues:

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[117] Due to space limitations I can't tell the story here but he basically secured funding through getting promoted in Bitcoin Magazine after they saw a tweet about someone paying for dentistry with Bitcoin. See Hoffman (2021) for the story in Bitcoin Magazine.

...Bitcoiners don't surf the waves so much, they mostly surf the internet

I laugh at Jorge's joke and wonder whether Bitcoin Beach can really just be understood as a sly way of attracting another set of paying customers to a growing tourist economy with an increasingly scarce resource of waves. Then I think about land, and my smile fades.

Starting in the 19th century, the 'land problem' was the defining political- and social issue for El Salvador; before it became 'the civil war problem' and afterwards became the 'the gang problem'.[118] For much of the country's history, the economy has been focused on a single export cash crop: coffee. Coffee exports had a defining effect on the structure of El Salvador's economy (Pelupessy 1995:17-31). Because coffee is a permanent crop that requires relatively high levels of investment and technology, having an economy based around it encourages private ownership of land. Coffee growing in the 19th century marked the beginning of a process of privatisation and consolidation of land (Pelupessy 1995:18). A small group of large producers and (foreign) trading firms in the cities monopolised the trade in-, processing-, transport-, and export of coffee. This group gradually became the major force in the economy (Guidos Vejar 1980:85-6) and an oligarchy that essentially used the Salvadoran government as a tool for their own ends (Browning 1975:247 & Colindres 1977:28-30 as cited in Pelupessy 1995:21-4). Even during massive popular unrest in the 1960s (ibid:29) landlessness in El Salvador continued to grow (Moodie 2010:28).

Access to land was a common worry during my time in El Zonte. Especially in the past seven years; the price of land has soared. Several locals in El Zonte live in tinplate dwellings on unused land, sometimes laid rights to by the government. Many of them have not received proper land rights; even though they have lived there for tens of years (some even for generations). When asked about their situation, locals told me about various configurations of guarantees that they had been given – essentially some type of settlement rights. However, sometimes, it was quite clear that they were suspicious of my intentions, characterising me as a foreigner who was interested in buying the land from the government.

El Zonte is part of the municipality of Chiltiupan and so to buy land there you need to head up to the mayor's office on the mountain of Chiltiupan. In my interview with the mayor, he was unable to give me any direct clarifications on the legal status of these dwellings. He was sympathetic towards these people but argued that in the end; they depended on the goodwill of the national government. With the recent adoption of a national 'expropriation law' (this is the phrase my interlocutors used) the future of their dwellings was highly uncertain. In fact, for those that lived near the main road that crosses El Zonte, expropriation was just a matter of time. Included in the plans of a tourist development project called 'Surf City' are plans to widen the roads by El Salvador's coast, in order to make it easier for tourists to access places like El Zonte.[119]

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[118] I'm slightly paraphrasing Joan Didion's observation about constant references to the war as simply 'the problem' during her visit to El Salvador in 1992.

[119] The Surf City project and the widening of the road is handled by the MOP (Ministerio de Obras Públicas y de Transporte), which is an institution that acts on state-level. The mayor told me that decision-making power had been
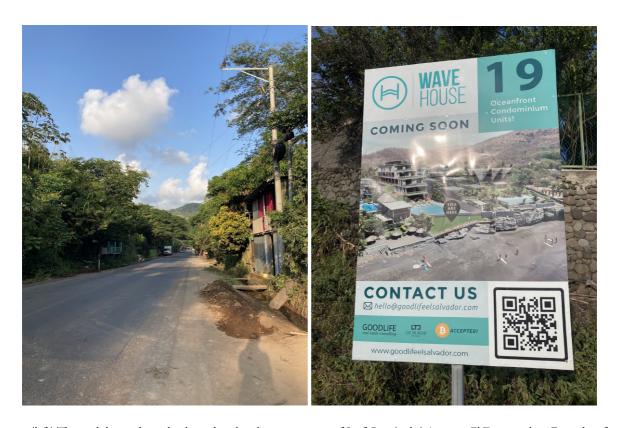
When I asked locals about these dynamics, I was often met with an attitude of capitalist realism (Fischer 2009). When interviewing one woman in her restaurant and house on the beach, with a highly dubious legal situation, she stared at me dumbfounded as I tried over and over to elicit some frustration from her regarding the precarious situation:

"If there were no tourists, what would we do? [...] The more tourists, the more money [...] People were very poor before you know" she told me.

Indeed, I gradually came to understand that the inhabitants of El Zonte were relatively well off when compared to other rural places in El Salvador, and several inhabitants understood themselves as such.[120] When I asked about displacement, the same woman shrugged her shoulders and said,

'We have to move from the beach because richer people want it. Isn't that how it is everywhere?'

(left) The road that is planned to be widened in the construction of Surf City. (right) A sign in El Zonte with a 3D-render of a tourist construction project in El Zonte.

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further centralised during the past years, and that the MOP now had most of the power over infrastructural issues related to El Zonte.

[120] 'The real poverty is here', a man from El Zonte told me as we passed a set of shacklike dwellings on a drive in the countryside.

4.4 Trading Your Reflection for Gold

Another barbecue with the Bitcoiners and someone references a news documentary that was made about Bitcoin Beach last year. They say it was fairly balanced but that it didn't look good for them when the filmmaker let one of the more 'off-hinged Bitcoiners' get a lot of screen time. In the documentary, the man in question practically brags to the camera: 'Yeah, Bitcoin is great, this place is great, I just bought a goddamn mountain!'. Alongside this clip, they show a Salvadoran business owner in El Zonte who draws parallels between Bitcoiners and the Conquistadors. The same parallel was made to me by one of the local surfers who, laughing at his own drunken wit, yelled out: 'Bitcoinquistadors!' to a pair of Bitcoin-looking foreigners at the Point Break by the east of the river.

I went to talk to the El Zonte business owner in the video clip. He was born in San Salvador and mainly resides there, but he has been coming to El Zonte to surf ever since he was young. The man tells me he got a bit carried away during the interview for the documentary and that he has now changed his mind. He doesn't have problems with Bitcoiners now, 'just a few bad apples', he clarifies. The man is now accepting Bitcoin payments at his El Zonte establishment and assures me he is good friends with 'Jorge, Roman and those guys'. However, he still feels uncertain about the whole thing. When explaining this to me, he offers yet another parable to the conquistadors:

> But imagine... FTX showed up last year [at the Bitcoin conference]. The guys from Binance also show up here. Like we say about when the Spanish conquered America, like 400 years ago. They discovered that here in America we have a lot of gold, right? And the Spanish came and they say, they start trading, like a mirror for gold. The locals, the native people, didn't have a mirror before. So the Spanish said: 'Look it's you in the mirror', and the Spanish said they could have a mirror, like magic, if they gave gold in exchange right? You know, for me, some people are very smart and they have the facility to sell something that is maybe air, but in return, they are getting something more valuable, but they give you something like a [mirror]. I'm not saying that it's that way. But you don't know and you don't understand [because] everything is new, you know? It's like you: "Oh, change mirror for gold, sure!"

The story about conquistadors tricking indigenous people to trade a scarce resource for their own reflection can be approached as an allegorical myth in order to explore social tensions of the imaginaries of Bitcoin in El Zonte.[121]

On one end, we can interpret the myth as being about displacement. Gold here represents the scarce resource of land, and the mirror represents the way Gabriel and others view Bitcoin as a means to change the national image of El Zonte. 'Some people have the facility to sell air but what they get in return is more valuable'. This interpretation of the myth makes it represent the vague

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[121] Anthropological approaches to myths can not be given a sufficient overview here but it is worth noting that many of them are based on structuralist ideas that have been heavily criticised (see Kuper 1999:159-200, especially 174-7; Moberg 2013:266-279; Ortner 1984:135-8). My allegorical interpretation of this story as a myth is more akin to Clifford Geertz' symbolic approach (Moberg 2013:284-6). Even though it is in conjunction with what my interlocutors have told me, my allegorical interpretation is not necessarily the meaning of the story, rather I use it as an illustrative tool in order to describe interpretive tensions present in my material.

uncertainty or fear about becoming connected to global flows of capital, the fear of being tricked into giving away something of which you do not realise the value.

For other interlocutors, an inversal of the myth offers a better representation. It is in fact by giving away your mirror image for gold–by turning El Zonte into Bitcoin Beach (and El Salvador into Bitcoin Country) to aid the tourist economy–that something intangible, but important, is lost. Here as well, it is a feeling that by becoming connected to the global grid; you are giving away something which you do not realise the value of.

Several people I spoke to, many of them surfers, told me that El Zonte isn't Bitcoin Beach:

> El Zonte is the indigenous name. Not Bitcoin Beach. I don't want to be called Bitcoin Beach or say that I am on Bitcoin Beach. It doesn't hurt me commercially; it hurts my feelings. It is like they stamp "Bitcoin beach" on your forehead. [...] They think they can conquer us, just because we're so small you know

The man telling me this is frustrated with the reimagining of El Zonte in a way that we can relate to Crandall's study (2019) of cryptocurrency in Puerto Rico, in which she refers to cryptocurrency advocates as imposing neocolonial founding myths that posit the place in question as a blank slate. In further conversation, he expresses anger towards being incorporated into a global flow of capital that he had aimed to escape. Similarly, Jane, a foreign woman, tells me she moved to El Zonte to 'escape the system': 'The Bitcoiners did the same, but they're trying to build a new one', she says. Jane knew El Zonte as a 'rough, unpolished diamond'. She feels sad about what is happening to El Zonte and liked it better before all the tourists found it; especially before Bitcoin. Bitcoin is just about everything she hears people talk about today,

> It's like a cult. No one talks about sorting out the basic problems in El Zonte, like water treatment, the roads, the sewage system, the school... A digital payment system is very low down on the list of priorities[122]

The woman is about to pour up coffee when she notices a frog has jumped into her water boiler; it has been boiled alive during our conversation. We stare at the green frog laying on its back in the plastic white water boiler. She pours the water and the dead frog out on the lawn and starts over. Jane proceeds to tell me that things can't be the same forever and that her nostalgia for the original El Zonte shouldn't dictate the future of the place. She tells me about how some things have changed for the better and that even though it hasn't done so yet, some of Jane's local friends retain hope that Bitcoin will eventually help the economy.

I am eating breakfast at Luz de Mar, the restaurant owned by the daughter of Nina Tomasa, the blind old lady that Jane refers to as the last living symbol of the 'true El Zonte'. Like many restaurants–especially on the east side of the river–Luz de Mar used to accept Bitcoin but stopped doing it because of losing money due to volatility. When asked about Bitcoin, several people would simply respond: 'abajo' and gesture the downward motion of Bitcoin's price graph. While I am waiting for scrambled eggs, beans, cheese and tortillas, a man called Santiago comes in and gives a loving kiss to the old woman in her hammock. Santiago and I start talking:

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[122] This sentiment was repeated by the aforementioned man and several other people in El Zonte.

> No one uses Bitcoin. Everyone uses cash. People hang out at the beach surfing, getting money to pay for basic things like drinking beer at night. No one saves, money is a day-to-day thing.

Santiago points to Luz de Mar's thatch roof and gestures for me to look around, to realise the absurdity of Bitcoin,

> You think these people want to have Bitcoin? You think those surfers over there carry smartphones in their boardshorts?

Again, in an aesthetic protest to Bitcoin Beach, Santiago points to an expensive restaurant and complains that it's even worse than 'the Salvadorans from the city with their fancy credit cards'. He makes a disgusted grimace and imitates a rich person swiping his credit card.
Santiago goes on to argue that Bitcoin Beach is a form of donation fraud, it only helps to enrich Jorge and the people close to him. The rest practically have to go and 'kiss ass' and 'beg' at Hope House to receive a slice of the cake. Santiago reasons that the project unfairly uses the collective domain of El Zonte's brand in order to secure international donations that only work to exacerbate preexisting economic inequalities. Santiago leans back and shrugs his shoulders, explaining to me,

> For me personally... I am one of the lucky ones to actually own a piece of land here y'know, and the prices are going up like crazy so, I'm like a benefactor of this whole Bitcoin thing

This last comment exemplifies how Bitcoin was not necessarily contested out of practical self-interest, but rather on the basis of the infrastructural aesthetic (and aisthesis[123]) of Bitcoin (Larkin 2016). Protests of Bitcoin were leveraged in the same breath as protests towards Surf City and fancy hotels in El Zonte in more modern styles. I initially found the repetitiveness of aesthetic complaints regarding Bitcoin puzzling, but I have now come to think of it as offering a fascinating insight into a rather unarticulated conflict. Whether in Bitcoin or other forms, the idea of digital money as a future standard signifies a future in which digital (or virtual) materiality permeates the everyday, perhaps similar to what iron did in the industrial era (Mumford 2010:164). Bitcoin's virtual materiality is wrought up with non-bounded spatiality, completely at odds with El Zonte's thatched roofs offering a sequestered shade from the limelight of networked modernity (Larkin 2013:332). Larkin (2013:336) urges us to ask what infrastructures make visible and invisible and Bitcoin is by critics understood to make invisible the tangible verifiability of physical cash and simultaneously elucidate the complex underpinnings that give currency its exchange value. For Bitcoiners, such visibility is part of the allure, working as an illuminating contestation of money and producing a sense of philosophical awe (Larkin 2013:332-3). For surfers like Santiago, such visibility is distracting as focusing on money itself is misguided. Money should merely be a means for simplifying everyday social transactions and its complex infrastructural background is best left

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[123] The word Aisthesis refers not only to the mental appreciation of works of art, but to a bodily reaction to lived reality. Larkin writes that: "Aesthetics in this sense is not a representation but an embodied experience governed by the ways infrastructures produce the ambient conditions of everyday life: our sense of temperature, speed, florescence, and the ideas we have associated with these conditions." (2013:336-7)

obscured (he tells me about the delusion of people in San Salvador wasting their lives staring at price charts on their computers, 'just to earn money').

Don't be fooled by the thatched roofs. This is the restaurant where Santiago sees rich Salvadorans from the city swipe their credit cars. The empty spot below the restaurant is the prime spot for surfers like Santiago to sit and stare at other surfers out in the water.

4.5 Occult Bitcoin Economies

An early application of Bitcoin was an agreement with the local water agency that locals would pay their water bills with it. Mira was working for the water agency and recalls how previously, people refused to pay their water bills in Bitcoin. Apparently, this was because some of El Zonte's evangelical community had spread the word that it was the Devil's currency, related to the biblical number of the beast. It wasn't the last time during my fieldwork that I came across the phenomena of people connecting Bitcoin to that seemingly prescient passage in the Book of revelations:

> And the second beast required all people small and great, rich and poor, free and slave, to receive a mark on their right hand or on their forehead, so that no one could buy or sell unless he had the mark—the name of the beast or the number of its name [13:16-17].

On the night before I speak with Jorge, I am in my house preparing to go to bed. But the regular evening tune of Pentecostal shouts and praise songs persists longer than usual, so I become curious. I decide to head down to the church to see what it is all about. It's Halloween mass. The preacher shouts many things, but none of these shouts contain the word 'Bitcoin'. So, I ask the people outside the church about the number of the beast thing. A man tells me it was just in the beginning: 'They didn't know what it was back then, they feared it because it was foreign money'. Another two people tell me that perhaps some still believe it's the devil's currency, but most people understand now that it is something different.'

In this example, we yet again see a moral dimension, anxiety about trading your 'soul' away, and a conceptualisation of Bitcoin as a vague evil. The idea of it as 'foreign money' and stated anxieties about the foreign influx of capital posits these vague premonitions as sense-making responses to the disconcerting disconnectedness associated with globalisation. In the words of anthropologist George Marcus:

> [...]certain practices, anxieties, and ambivalences are present as specific responses to the intimate functioning of non-local agencies and causes - for which there are no convincing common-sense understandings (1999:98).

Similarly, with Comaroff & Comaroff (1999; 2018)'s idea of 'Occult Economies', the authors posit certain rumours and conspiracies in South Africa as varied cultural responses to a sudden awareness of new means of mobility and accumulation (297-300).[124]

Leaning in as if to whisper a secret to me, Santiago tells me about jealousy, suspicion and Bitcoin:

'Bitcoin's like 'money-under-the-table', to launder money and to not pay tax, you know a lot of people now are making money on real estate, there's something shady going on like...' Failing to further specify, Santiago repeats: '...*under-the-table*'

At night, when all of El Zonte has gone to sleep, me and a man share a beer at the empty beach. Any movement through El Zonte at this hour elicits the echolocation of a gradually growing number of barking dogs. The man reveals to me that he has been dead for the past 15 years. Diego had escaped the clutches of the Maras in San Salvador and when gang members had come looking for him, his family had told them that Diego had died trying to cross the US border. In fact, he had gone into hiding in El Zonte. After 15 years, Diego has still not dared to travel back to his family—out of fear they would be killed if the wrong people saw him alive. Diego seems traumatised from these years of hiding and is paranoid about gangs in the town. He tells me that gangs still control El Zonte and that Bitcoin Beach is heavily associated with them. When I tell

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[124] To clarify, Comaroff & Comaroff's engagement with the term 'occult' doesn't imply that the threat of violence is merely a superstition. Rather they argue that we should understand instances of the occult as abstract cultural responses to *legitimate* threats of violence, brought forward by abstract processes. In this chapter I engage with notions of 'paranoia' and conspiracy in the same manner; in the context of El Salvador, there are legitimate concerns for worry and Bitcoin is entwined with a violence of abstraction.

Diego that I have heard nothing to support this accusation, he becomes emotional and responds that of course no one would tell me the truth. They fear getting killed.

Another person criticising Bitcoin Beach explained to me they had to be anonymous because:

> 'You can't criticise these things out loud, or like... criticise Bitcoin and the government, otherwise people will show up knocking at your door you know. This is El Salvador'[125]

I have found little reason to take Diego's accusations at face value, but his fear serves to illustrate how El Salvador's traumatic past resurfaces to haunt the uncanny present (Bryant & Knight 2019:92; Good et al. 2022).[126] The vague premonition that something is off and that Bitcoin becomes associated with preexisting uncertainties surrounding land, criminality and government suppression can be interpreted as 'non-specific anxieties' in reaction to 'shadowy shifts in the economy'.[127] 'Uncanny' becomes just the right word to characterise the indeterminacy of Bitcoin and its association with estranged-, or even occult-, financial flows (money-under-the-table, devil's currency...), as well as the sudden disappearance of the gangs. Diego refuses to believe that the gangs have in fact disappeared but argues that they still operate but that they now do so in the shadows.

In fact, the early drop in killings in El Salvador was associated with rise of disappearances (Aguilar et al. 2021; Katie 2021). As the anthropologist Elana Zilberg noted during her fieldwork in El Salvador, such disappearances have been objects of speculative paranoia that merge anxieties about transnational gangs with anxieties of the civil war's U.S. funded death squads (2007; see also Coutin 2007:171-3). In 1992, during the war, Joan Didion noted how English-speaking people in El Salvador borrowed the grammatical flexibility of the Spanish verb 'Desaparecer' to modify the English verb disappear. This modification makes possible common sentences such as 'John Sullivan was disappeared from the Sheraton' (2019:57). Recently, the amount of disappearances have been correlated to the amount of gang activity in a certain neighbourhood and the amount of hidden mass graves that have been found by investigators in these areas (Katie 2021). On the other hand, the frequency of loud and public killings–those that get reported in the news–are somewhat correlated to when governments have failed to appease the gangs. Instances such as a temporary rise in killings after a government decision to halt the segregation of prisons by gang affiliation have led some to suspect killings as being used simply as a signal, to express dissatisfaction with ongoing negotiations (Dalby 2020). The criminal gangs were understood to have such a strong hold of El Salvador that even when accounting for the 'state of emergency', several of my interlocutors told me that 'something felt off about' Bukele's success in heavily reducing the amount of murders in the

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[125] Other researchers in El Salvador have also faced problems with self-censorship due to fear of government repression, and have interpreted it as related to government repression during the war and criminality (Todd 2010:11, Moodie 2010:13)

[126] Susanne Coutin (2007:149-175) also attends to the way El Salvador's civil war past haunts its present, noting how guerillas and death squads are tangled up with criminal gangs in stories about contemporary violence (see also Zilberg 2007). Perhaps we see something similar in rumours about globalised Bitcoin flows as a form of violence of abstraction.

[127] To borrow a phrase from Ellen Moodie (2007:49)

country. Two separate investigations have found evidence that Bukele's government has been negotiating with the gangs in order to reduce murders (Martínez et al. 2020; Dudley & Papadovassilakis 2020).[128]

Again, in these rumours and expressions of anxiety, transnational flows of criminality and illicit capital become associated with the imaginary of Bitcoin. Like the Bitcoiners, the Salvadoran Bitcoin critics have their own conspiracies, but continuing past tradition these are set in the intersection of gang killings and political life (Zilberg 2007:40-41). Key problems in El Salvador's history: land, government suppression and criminality, resurface to make sense of and contest the globalised future Bitcoin is brought to bear on El Salvador.

These worries are not pure 'figments of the imagination' but are practically informed by people becoming rich or savings being drained due to Bitcoin price movements caused by "non-local agencies and causes for which there are no convincing common-sense understandings" (Marcus 1999:98). Yet another practical example is the fact that many people in, and around, El Zonte were more exposed to international scams when they became connected to the international grid of Bitcoin.

> At some point there were a lot of people coming from all over that country, you know, trying to get Bitcoin. And some people on Facebook would say 'OK, send money here and I'll send you Bitcoin there and it was a scam'. A lot of people got robbed, you know.[129]

As a poor community with low digital literacy and a Bitcoin ATM, El Zonte was specifically targeted by online scammers trying to make a quick buck. A representative from Bitcoin Beach Wallet showed me his long list of online support requests from people being scammed by buying Bitcoin for dollars, and sending them away to a fraudulent address—never to be seen again. While you can see the scammers' wallets (and the multitude of Bitcoins they store in them), after the Bitcoin is sent; there's nothing to be done about it.

Mike Peterson tells me that at one point it got so bad that they tried to have one person at the Bitcoin ATM in Hope House at all times, to assist if people were confused and to dissuade people if they were sending money to something that sounded like a scam. Sometimes Mike would be there himself. In a parable to the potential disappointment of expectations created by global connection (Ferguson 1990), Peterson tells me it was common for women to get tricked into romantic online relationships with scammers. Mike tells me about the difficulty of explaining to one woman, who was about to send money for emergency medicine to an overseas fiance in trouble, that it was a scam,

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[128] The content of deals that have been struck between the gangs and the government remain somewhat of a mystery. At the moment of writing, ongoing US interrogations with captured MS-13 members of the Mexican filial are gradually shedding more light on this (Parker 2023; Martínez, Cáceres & Martínez 2023).
[129] He tells me about classic scams in Central America where people have luxurious events, renting stadiums and musicians and giving a display of wealth, promising to give people a daily 5% return if they put their money into their company. Famous scammers would do the same with Bitcoin.

> They get these people so excited. Yeah. And then they would get, like, mad at you, like you're trying to keep them from something. And so some of them would still buy it. Then you see them a few months later, they'll be like, 'yeah, you were right'.

Another person running a Bitcoin charity initiative in El Zonte, say that fear against these scammers was leveraged at El Zonte's Bitcoin-related projects:

> And then we had issues with people saying that we are the scammers. you know, the: 'master scammers', [...] Media came from all over the world to see how you can buy a coke with Bitcoin... a lot of cameras and there were all these humble people, you know? They were trying to deal with this media, right? And then people were saying we are like the President Rat Lab; and you're like: what!? The president hasn't even been here!

The image of Bitcoin Beach reflected in the cameras of global news teams circling El Zonte, is one of global connections. What some used to characterise as a quiet escape from the system is through the imaginary of Bitcoin Beach, now becoming part of a new one. We've seen in this chapter how imaginations of geographical space and temporality are intimately intertwined with one another as Bitcoin Beach serves to foster a future imaginary of global connection.

The conspiracies of both Bitcoin promoters and Bitcoin critics can perhaps be seen as responses to a disconcerting sense of increasing connection to global flows of capital[130], the cosmopolitan Bitcoiners associate these with Fiat and use Bitcoin to escape from these binding ties[131], inversely the Salvadoran critics see these as coming with Bitcoin.[132]

For the foreign Bitcoiners we have met, Bitcoin provides hope amidst fear of global conspiracies leading to a future of dystopian control. For Salvadorans like Gabriel, the dystopia is rather in El Salvador's past and Bitcoin opens a door out of it. Like the Bitcoiners, the Salvadoran Bitcoin critics have their own conspiracies, set in the intersection of gang killings and political life (Zilberg 2007: 40-41)–Bitcoin becomes haunted by the past (Good et al. 2022).

5. Conclusion

5.1 Lowering Time Preferences and creating hope

Considering the lack of basic infrastructure in El Zonte and the lack of money available for financial speculation (or even saving), critics contest Bitcoin as superfluous. We might compare this to how the socialist government built hundreds of miles of empty roads in Albania at the same time that they practically prevented the ownership of cars (Dalakoglou 2010). Despite the lack of access to smartphones, computers and the internet in El Salvador (Alvarez et al. 2022), Bitcoin's digital

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[130] Similarly to the critique of several anthropologists, Bitcoiners have no kind words to spare with regards to the structural adjustment programs promoted by IMF and the World Bank (Graeber 2011: 5 & 16; Hickel 2014: 1365)

[131] "Evidence that some communities mistrust standard banking institutions might also be read as a desire to refuse the binding ties of credit/debt with faceless outsiders and thereby retain sovereignty over their own futures" Peebles (2010:230)

[132] One man's worries about Bitcoin actually mirrored the Bitcoiners' worries about CBDCs; he refused Bitcoin out of concerns over surveillance and global political power.

materiality is fetishised as bringing about a general digitalisation and with it, satisfying aesthetic promises of modernity and global interconnectedness (Dalakoglou 2010). As we have seen throughout Chapter 4, some Salvadorans experience Bitcoin as 'an enthusiasm of the imagination' (Mrazek 2002:166) stimulating feelings of developmental promise. What my interlocutors expect Bitcoin to bring to El Salvador is not direct economic benefits, rather they expect it to act as an infrastructural tool (or trigger) for shaping individual subjectivities (Schnitzler 2013) towards becoming more future-oriented and creating aspirations of global modernity (Pedersen 2011:45; Mrazek 2002; Mattelart 1996, 2000 as cited in Larkin 2013; Ferguson 1990).

We can compare this to Uimonens's (2001:157) study of internet development in Malaysia, in which she shows how Malaysia's President Mahathir[133] embrace the internet to promote his overall goal of improving what he identified to be "inadequate attitudes to money, property and time" among Malaysia's population (Khoo 1995:110). For Mahathir, internet development came with the promise to aid Malays in adopting a value system better tuned to the requirements of modern life (Uimonen 2001:157). As in Schnitzler's study (2013) of the prepaid water metre in South Africa, the constraints and affordances of Bitcoin are 'capable of eliciting and shaping certain habits, subjectivities and disposition' (2013:678).

The emphasis on Bitcoin as a tool for lowering time preference, and financial education are typical instances of developmental discourse positing technology "as a sort of moral force" that contributes to "the planetary extension of modernist ideals" (Escobar 1995:36). It can be likened to how the internet was viewed as a western cultural product representing the West's desire to conquer the rest (Sardar 1996:16). In Malaysia, early media coverage of the internet, perceived as a foreign evil clashing with local culture (Uimonen 2001:154). However, the varying forms in which the internet became embedded in developing countries show that the supposed centre-periphery flows that such an idea builds on are far from uniform or unilateral (Uimonen 2001:55). Anthropological scholars have long criticised the simple idea of modernisation as an unstoppable force of uniformity ebbing out centre to periphery without adaptation to sociocultural contexts (e.g. Appadurai 1990, 1991; Hannerz 1992).

In similarity to Gabriel, one woman told me how Bitcoin indeed was a risky gamble, but one that was worth taking. The woman smiled hopefully as she said: 'It's risky, but we have nothing left to lose'.[134] Adopting Bitcoin is in this case seen as speculation within the midst of uncertainty

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[133] Mahathir also embraced an anti-colonialist and anti-imperialist rhetoric (like Bukele) (Uimonen 2001:159) and was also authoritarian, using the internal security act to allow the government "to detain individuals without trial for an indefinite period" (like Bukele) (ibid:160), also Mahathir projected an image of a modernised Malaysia in order to position Malaysia in the 'winning league of nations'. In yet another parable, in similarity to Bitcoin City, Mahathir promoted the Multimedia Super Corridor (MSC), a high-tech digital zone in which the "intelligent city" Cyberjaya was established. The ambitiousness of MSC and Cyberjaya was understood as providing the Malaysian population with a sense of direction (ibid:149).

[134] Rather than foreign Bitcoinquistadors, it is Salvadorans themselves who apply that discourse of disaster capitalism that Crandall (2019) discusses. This is similar to how Bryant & Knight see speculation as characteristic of cases of protracted economic crises in which 'locals feel that they have very little to lose' (2019:99). Related to this, Simpson & Sheller argues that the 'crypto-utopian' projects they study in Puerto Rico, Honduras and French Polynesia, all rely '[...]

(Bryant & Knight 2019:103-4): but as a gamble that turns the undeniable uncertainty of El Salvador's present into risk (Appadurai 2015:129). Betting on that the rest of the world adopts Bitcoin as well, El Salvador's early adoption might leapfrog the country into a frontier of financial technology—rather than just 'catching up' (or borrowing, see Service 1961: 115, or bridging the gap of digital inclusion, see Uimonen 2001:96). The integral connection of the term 'hope' with such a Bitcoin gamble emphasises that–rather than the actual outcome–what is important in this imaginary is the ability to take risk and thus enable hope (Appadurai 2015:129). By Bitcoin positive Salvadorans, the new financial technology is understood as a way to gain a sense of direction and significance (Escobar 1995: 36).

Renato, a Salvadoran man engaged with an affordable housing project in El Zonte, tells me that for him, Bitcoin is not a tool; it is a trigger. As Renato got engaged with the Bitcoin community, he understood that people were not poor because of character flaws but because of systemic injustices—they were financially excluded. For Renato, Bitcoin illuminates the injustice of pre-existing financial infrastructures. This mobilised him to act for change. As Renato tells me, having proper housing is the ultimate affordance for lowering time-preferences.

5.2 Re-embedding

As the Bitcoin critic said earlier in this thesis, the Bitcoiners are not seeking to merely escape the system, they are trying to build a new one.

In their relations to Salvadorans, people regularly emphasised the friendly and welcoming attitudes of Salvadorans. Examples such as that people look each other in the eye, greet each other and help if your car breaks down were regularly brought up in a romanticised way.[135] Repeatedly, El Salvador figured as a representation of a nostalgic longing for neighbourhood friendliness and an escape from the individual atomisation of modern society. As Jeremy puts it:

> The concept of neighbours is being erased from the sort of modern social fabric in the United States. But we're seeing a reversing trend here—I know my neighbours. This has nothing to do with you know necessarily freedom or liberty [or bitcoin] but it has everything to do with what you would expect an ideal society to look like.

In El Salvador, the concept of neighbours has been revived for Jeremy, with more communal life, based in proximity than he had ever had before. Even if there is both an escape geography and escape temporality at play, I have seen very little to suggest that these foreign Bitcoiners are trying to escape webs of interrelation, rather, they are working hard to forge new ones.[136] They are not–as one of my

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on moments of uncertainty, transition and emergency, taking advantage of the temporal exigencies of political and market disruptions' (2022:8).'

[135] Moreover, what has not been taken up in the essay is that discussions at the barbecue and in various online chat groups I have been engaged with, actually predominantly dealt with simple neighbourly matters.

[136] Bitcoiners' descriptions of lockdowns in their home countries can simultaneously be understood as experiences of 'atomisation': and furthermore a rejected atomisation which was not understood to stem from neoliberalism but rather

interlocutors referred to himself–antisocial. As exemplified in chapter 2.2.2 and elsewhere, Bitcoiners show a strong engagement in the practical maintenance of the sociotechnical infrastructure that facilitates them as a community–they care about and maintain the sociality that they produce. I want to suggest one more way in which this sociality is bound up with Bitcoin.

Giddens distinguishes two types of disembedding mechanisms. One is symbolic tokens, such as money; the other is expert systems that provide "guarantees of expectations across distanciated time-space". Bitcoin as a technology, the Bitcoin Blockchain, software wallets and other technical paraphernalia associated with Bitcoin–all rely on expert systems in Gidden's sense (1990:27-9). For example, you need to trust that experts such as coders and designers have made sure that the wallet software you access Bitcoin through—achieves what you are told it does.[137] When scrutinised, regular forms of money are also bound up with expert systems, since their function depends on trust leveraged by public confidence in the issuing government (Giddens 1990:26).[138]

At the time that Giddens was writing, he understood disengagement from governmental systems as near impossible (ibid:91). However, Bitcoin works as a disengagement from national governments and the expert systems that assure the functions of their currencies. This is the story told in notions of 'cryptosecessionism' and 'escape geography'. However, because Bitcoiners are a recursive public, Bitcoiners and Bitcoin are embedded together. For Bitcoiners, Bitcoin does not rely on expert systems–they have learned to verify rather than to trust and when trust is still needed, it is embedded in the Bitcoin community and not in disembedding expert systems.[139] To uphold the

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from enforcement of communitarian aid, from above. 'Socialism', or 'Communism' – in their terms. In the Bitcoiners' own descriptions, helping each other not to get sick was not fixed in the boundedness between intimate social relations but rather collectively on the macrolevel of the nationstate (not preventing your grandma from getting sick but preventing the disease rate to reach a certain percentage). As seen in the romantic representations of El Salvador and El Zonte, non-competitive help and mutual aid and communitarian altruism is not opposed but rather promoted, however, it has to be on a level of 'chosen' community or at least a directly accessible community. Even Eric, who strongly promoted himself as an individualist, went out of his way to praise what he perceived to be an 'organic' trust in El Zonte, and others in El Zonte praised the seemingly 'natural' systems of trust in opposition to ''artificial' government opposed systems.

The biggest cultural shock I experienced in El Zonte had perhaps most to do with scale, a big city dweller can feel suffocated there, every step is surveilled and every action scrutinised by the curious community. People self-censor, they do not dare to speak in fear of upsetting the wrong people. People have to avoid conflict or face it everyday and those that have not managed to avoid conflict, restrict their movements to certain parts of the village. People were kind to each other, people were kept in check because of the neighbourhood reputation. There is a large body of literature on how to recreate the reputational constraints that make trust possible in the bodiless world of internet commerce. I discussed reputational systems with a hardcore libertarian Bitcoiner and ended up summarising: "but in these systems the individual is no less constrained; is this not just the tyranny of the many?" Sure, he said. "But that is better than the tyranny of the state.

[137] I met one man who was particularly concerned about fake wallets and Bitcoin imitation software

[138] Bitcoin illuminates this aspect of money, it is bound up with a general critique of experts that can briefly be summarised in the motto of 'don't trust, verify'.

[139] As a telling example, Eric explained to me that some of his trust in Bitcoin was aided by him recognising the pseudonym signatures when running Bitcoin core. He had hiked or had coffee with several of the people designing his monetary system. Another Bitcoiner told me the reason he went to Bitcoin conferences was to see the people designing his monetary system in the flesh–to know if he could trust them.

sociality that facilitates this system, Bitcoiners strive to find physical sites to congregate. These are places in which they can further re-embed themselves into new social contexts. As such, Bitcoiners are less 'rugged individualists' than both themselves and commentators suggest.

The interlocutor I quoted about the revival of neighbourhood sociality is living in a gated community. As mentioned in Chapter 2.2.1, almost no Salvadorans joined the barbecues. The question then becomes who is included in the new sociality that is produced. Are we dealing with an instance of encrypted geography (2021b, 2022a as cited in Simpson & Sheller 2022)? Is this a physical manifestation of a walled garden? An example of a 'just us' economy (Nelms et al. 2017)? If it is, it stands in contrast to the strong tendency of outward missionising of the Bitcoiners; as well as the incentives provided by the network effects of money as a communication medium. It is contrary to the aims of Bitcoiners to keep Salvadorans out of their walled garden. The question is whether Salvadorans want to come into the garden that the Bitcoiners have already built. A political economy perspective provides a better critical lens than the neocolonial framework. As Tremčinský (2022a:122) notes, the primitive accumulation has already taken place; newcomers will be at the mercy of the market movements of the early Bitcoin whales. While Bitcoiners praise the fixed supply of Bitcoin as fixing the problem of the Cantillon effect[140], people that are close to the source code (rather than the money printer) get significantly more political power in the governance of the new Bitcoin system. This has fundamental effects for trust, let me expand on this in a brief digression.

In ways this is manifested in an unequal distribution of the capability to design the future (Appadurai 2015: 188 & 299; Szolucha 2018; Crandall 2019; Bear 2020)—unequally distributed towards early adopters and those already established in the Bitcoin community. Looking at the case of securing crowdfunding for Bitcoin initiatives in El Zonte, we can also scrutinise the unequal opportunity of utilising the opportunities afforded by Bitcoin. A select few have garnered a significant amount of Bitcoin donations from the international Bitcoin community (usually people that are on good terms with Hope House), and the people that already owned real estate have managed to make money out of increased pressures on land and the owners of more high-end tourist establishments had significantly increased earnings as busloads of Bitcoiners flocked El Zonte during the Adopting Bitcoin Conference.[141] On my last day in El Zonte a man offered me a redescription of the Bitcoin circular economy in El Zonte:

> As I tell you, Jorge helps, because you start giving money to people in a pandemic, you are one of the best people. But the problem is that, with that money, you could only go shopping at Mama Rosa's store [Jorge's mother]. Uh-huh, so money was like this [gesturing a circle], in a circle: Circle economy of Valenzuela.

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[140] Bitcoiners regularly referred to the 'Cantillon effect' as that when the money-supply is increased, those close to political power benefit unevenly. See (SWFI 2021) for a short explanation.
[141] Dora and Luciana and several others told me that they had no increase in earnings during these days.

5.3 Summary

Bitcoiners and Bitcoin enthusiasts in El Salvador use Bitcoin as a technology of the imagination to (1) conjure escape imaginaries of new stateless socialites, and (2) speculative visions of Bitcoin Country and Bitcoin Beach as physical sites for re-embedding this new sociality. Moreover, they use Bitcoin to illuminate what they believe to be underlying infrastructural properties of money, making them into visible objects of critique. For example, money's ability to affect subjective attitudes towards the future through inflation/deflation of value.[142] Bitcoin's materiality is believed to extend temporal horizons, which facilitates hope, hope in turn can be a performative pursuit of bringing about speculative Bitcoin visions.

For Salvadoran Bitcoin enthusiasts and critics, Bitcoin illuminates the disembedding quality of money infrastructures through its virtual instantiation as a borderless form of money. For people like Gabriel, who through migration have experienced a break from El Salvador's past, Bitcoin can be perceived as an opportunity for El Salvador to start over. The disembedding properties of Bitcoin affords imaginaries that might break from the chronology of El Salvador's history and facilitate connections to global networks–characteristic of expectations of modernity. Yet, for people like Diego, Bitcoin is simply understood as part of a prolonged present (Bryant & Knight 2019:103) haunted by the uncertainties of the past (Good et al. 2022). Aside from unequal opportunities to profit from new flows of Bitcoin capital, the ability to use Bitcoin for conjuring hope is unequally distributed.

Most of my Salvadoran interlocutors–both Bitcoin critics and enthusiasts–are not part of the recursive public that is Bitcoiners. If they are to adopt Bitcoin, they either need to become part of the recursive public of Bitcoiners or rely on new, disembedding, expert systems. That is the bargain with Bitcoin modernity.

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[142] Also, as in the case of Renato, Bitcoin illuminates how money infrastructures can facilitate financial exclusion and how intermediaries unjustly profit from the transfer of remittances. For Renato, Bitcoin also illuminates how unequal access to proper housing manifests in unequally distributed capabilities to aspire.

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7. Appendices

APPENDIX 1: Explanation of Bitcoin

What is Blockchain?[143]

Blockchain, is the underlying cryptographic technology that is the basis of cryptocurrencies such as Bitcoin. It is the technology that almost all cryptocurrencies are built on and that is also utilised for other organisational problems, such as smart contracts and decentralised autonomous organisations (DAOs). Blockchain is a cryptographic technology that enables the functioning of digital currencies such as Bitcoin. A blockchain is a system for securely storing information without a centralised manager. It functions as a digitally distributed account book; that is, each user (or node) holds a copy of the account book. The process of adding new transactions to the account book is decentralised: that is, the users must collaboratively verify new transactions. A number of transactions together constitute a 'block' of information, and each block is chained together with all previous blocks – so for a hacker to change a block, it requires them to also change all previous blocks – this is what makes the ledger (supposedly) immutable. These designs enable a secure record of events without relying on a central authority. Blockchain supposedly disposes of the need for human intermediaries and is branded as a way to automate processes otherwise requiring trust; this is the root of the often-noted promotional slogan: 'don't trust, verify'.

What is Bitcoin?

The Bitcoin blockchain, in particular, relies on a proof-of-work algorithm. When a new block of transactions is to be added, computers across the network compete in trying to solve cryptographic puzzles (requiring brute force computing power), the first to solve the puzzle adds the new block to the chain and receives x amount of Bitcoins in reward for the work. This is called Bitcoin mining and is also the way that new Bitcoins are created. The amount of Bitcoins that are rewarded for each verified block halves roughly every four years.[144] There is a fixed total supply of 21 million Bitcoin, and the process of halving means that the final bitcoin is not expected to be generated until the year 2140. This is a design feature of 'scarcity' reminiscent of the gold standard. Because of this, Bitcoin is often lauded as digital gold and the choice of the metaphor of mining Bitcoin (rather than minting Bitcoin) can be understood to further this analogy (Maurer et al. 2013).[145] On another

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[143] I want to highlight that it is outside the scope of this paper to properly explain how Blockchain functions. This is important because a non-technical explanation of Blockchain necessarily needs to rely on simplified models. These simplifying models often tend to conflate what the designers of a particular piece of technology wants it to do with what that technology actually does. The technology is described through its supposed function. So, similarly to Grimmelmann (2019) I will try to avoid simply reiterating the ideologically laden mainstream explanations of Blockchain's function.

[144] after every 210,000 blocks

[145] All the references to this appendix can be found in the preceding reference list.

note, the difficulty of mining Bitcoin (again, that is, being rewarded Bitcoin for participating in verifying a new block of transactions) depends on the amount of computing power that is engaged in these processes. In practice, this has led to a technological arms race, with increasing computing power needed to reap the Bitcoin rewards of verifying new transactions (Swartz 2018).

Decentralised Money?

Previous ethnographic fieldwork has pointed out that in practice, Bitcoin often turns out less decentralised than promised (Ulfstjerne 2020). "The top 10% of miners control 90% of the Bitcoin mining capacity, and just 0.1% (about 50 miners) control 50% of mining capacity" (Graffeo 2021)

As the hardware- and electricity requirements needed to participate in Bitcoin mining[146] have grown beyond the capabilities of any regular user; Bitcoin mining has in practice been turned over to a few but powerful professional miners that have pooled together their resources (Swartz 2018). While the increase of participating computing power also comes with an increasing security of the network[147] – if 51% of these miners pooled together, they could in theory 'take over'[148] the network. External critics have pointed out that the increasing centralisation of effective computing power by a conglomeration of miners jeopardises the decentralised infrastructure of the project. This problem has also influenced internal tensions in the developing community. In dealing with a design problem regarding block-size, developers and miners were effectively at conflict of interest (Filippi & Loveluck 2016: 1). The long-standing block-size controversy led to the Bitcoin network splitting up into two networks: first in 2015 with the launch of Bitcoin XT, then in 2017 with the launch of Bitcoin Cash. Some developers behind these splits have argued that powerful miner pools successfully lobbied certain design changes in the (original) Bitcoin protocol.

Aside from this, the proof-of-work algorithm – and its accompanying arms race – mean that Bitcoin consumes a significant amount of electricity (in 2021 approximately at 0.55% of global electricity production, sparking criticism of significant environmental impact (Carter 2021). However, Bitcoin can be mined anywhere in the world and lowering electricity costs is key in profiting from mining, this means miners have been incentivised to set up camp close to cheaply available, often renewable, energy sources. This search for cheap and renewable energy has contributed to geographical concentration of mining rigs to places with cold climates and abundance of hydropower (ibid).

Barring a concern for the centralisation of mining power, the governance structure of the community developing the Bitcoin software is technocratic rather than democratic (Filippi & Loveluck 2016), only a handful of users actually contribute to the discussion forums that govern

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[146] at least in any meaningful way

[147] Since a hacker would have to outperform all miners in the network

[148] This isn't as straightforward as it might sound

the code repository of Bitcoin (Azouvi et al. 2019). Also, in order to buy and hold the currency, the large majority of non-technical users rely on third-parties such as cryptocurrency exchanges and wallet providers, the ownership of these are centred around a few large corporations (De Filippi 2019).

APPENDIX 2: English Summary of IUDOP 2022 National Survey on Bitcoin and The Exception Regime

General:
- 58 out of 100 Salvadorans believe that the main problem facing the country is the economy, including unemployment, high cost of living and poverty.
- 20 out of 100 Salvadorans believe the main problem is crime. In a survey done four months ago, this number was twice as high.
- 88 out of 100 believe that gang-related problems in the country have decreased with the exception regime.
- During the exception regime, 36.3% of Salvadorans indicated that respect for human rights has improved, 37.6% maintained that it remained the same and 23.1% indicated that it had worsened.
- 30.5 % knows of a person who has no apparent ties to gangs but that has been unjustifiably detained during the Exception Regime.

Bitcoin:
- 61.3% of the Salvadoran population disapproves of the Government's decision to implement the use of Bitcoin, while 38.7% of the Salvadoran population approves this decision.
- 76 out of 100 Salvadorans state that they have not used Bitcoin to make purchases or payments so far in 2022.
- 65 out of 100 Salvadorans indicated that they disagree or strongly disagree with the decision of the Government of President Nayib Bukele to continue spending public money to buy bitcoins.
- 77 out of 100 Salvadorans believe that President Nayib Bukele should not continue spending public money to continue buying bitcoin.
- 66 out of every 100 Salvadorans think the implementation of bitcoin in the country represents a failure and 17 of 100 think it is a success.
- 77 out of 100 Salvadorans hold that their family economic situation has not changed with the implementation of Bitcoin as legal tender.
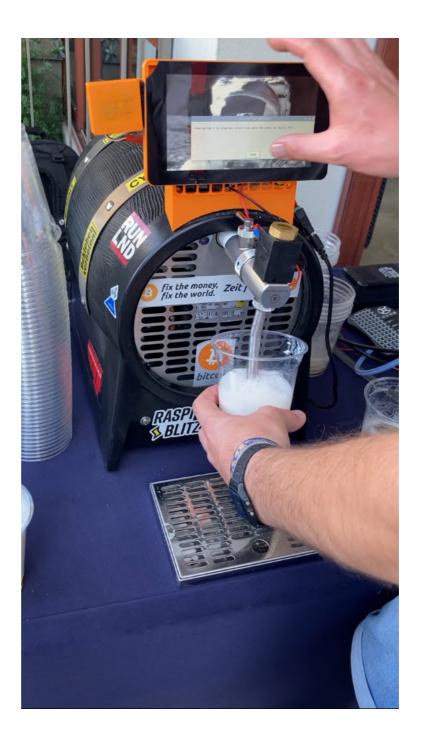
The report has been translated by myself.

APPENDIX 3: Kaboom and Bitcoin Beer: Re-embedding virtuality

There was a preoccupation with transforming the virtual materiality of Bitcoin to physical substance at the Bitcoin conference; demonstrative ways of establishing that 'Bitcoin is real'.

Here, you send virtual money through a QR-code and receive beer. On this photo however the man is receiving mostly foam. 'High mining fees', they joked. Don't feel sorry for the man though because he didn't pay; if you knew the people who made this machine they could show you how to get 'calibration beers'.

(Notice the 'fix the money, fix the world' sticker on the machine)

Panajachel, Guatemala. Another case of making Bitcoin physical. This is the Bitcoin Lago crews' Kaboom, a DIY Bitcoin miner powered by used cooking oil. They collect used cooking oil and use it to power the diesel generator shown in the picture (right), which in turn powers the 'computers' on the left (the things with cables in; this is (outdated) dedicated hardware for mining Bitcoin, donated to them by people within the Bitcoin community). It's not profitable but Patrick Melder–the leader of Bitcoin Lago–calls it a 'proof of concept', for how Bitcoin mining can encourage sustainable recycling. I do not have the space here to fully elaborate or criticise this idea, but suffice to say that I remain sceptical about this.

However, the roaring sound of the diesel engine and the smell of combusting cooking oil does turn the abstract, virtual materiality of Bitcoin into something more visceral, and tangible.

APPENDIX 4: New Story Homes

This is the construction site for the affordable housing project that Renato is involved in, New Story Homes. One woman–Rosa–is facing eviction because of the expansion of the road (both her home and business is located there), but she is soon going to become the owner of her own, proper house, through a micro-mortgage paid through Bitcoin. Rosa's house will cost 10 000 dollars and she will pay 60 dollars worth of Bitcoin each month to the charity. Renato sees New Story Charity as enhancing peoples' capacities to aspire, he tells me about the intricate connections between proper housing and the ability to plan for the future as well as how it provides indirect financial education by encouraging people to save money.

While Rosa is head over heels about her new house, some people I spoke to did not trust the New Story Charity project, they were worried that it was too far away from the beach and with the road getting too muddy to drive on during the rainy season they would be disconnected from tourist business ventures. Yet others worried about how close the site is to the water treatment plant, gesturing to me the icky smell of sewage. See more on: https://newstoryhomes.org/