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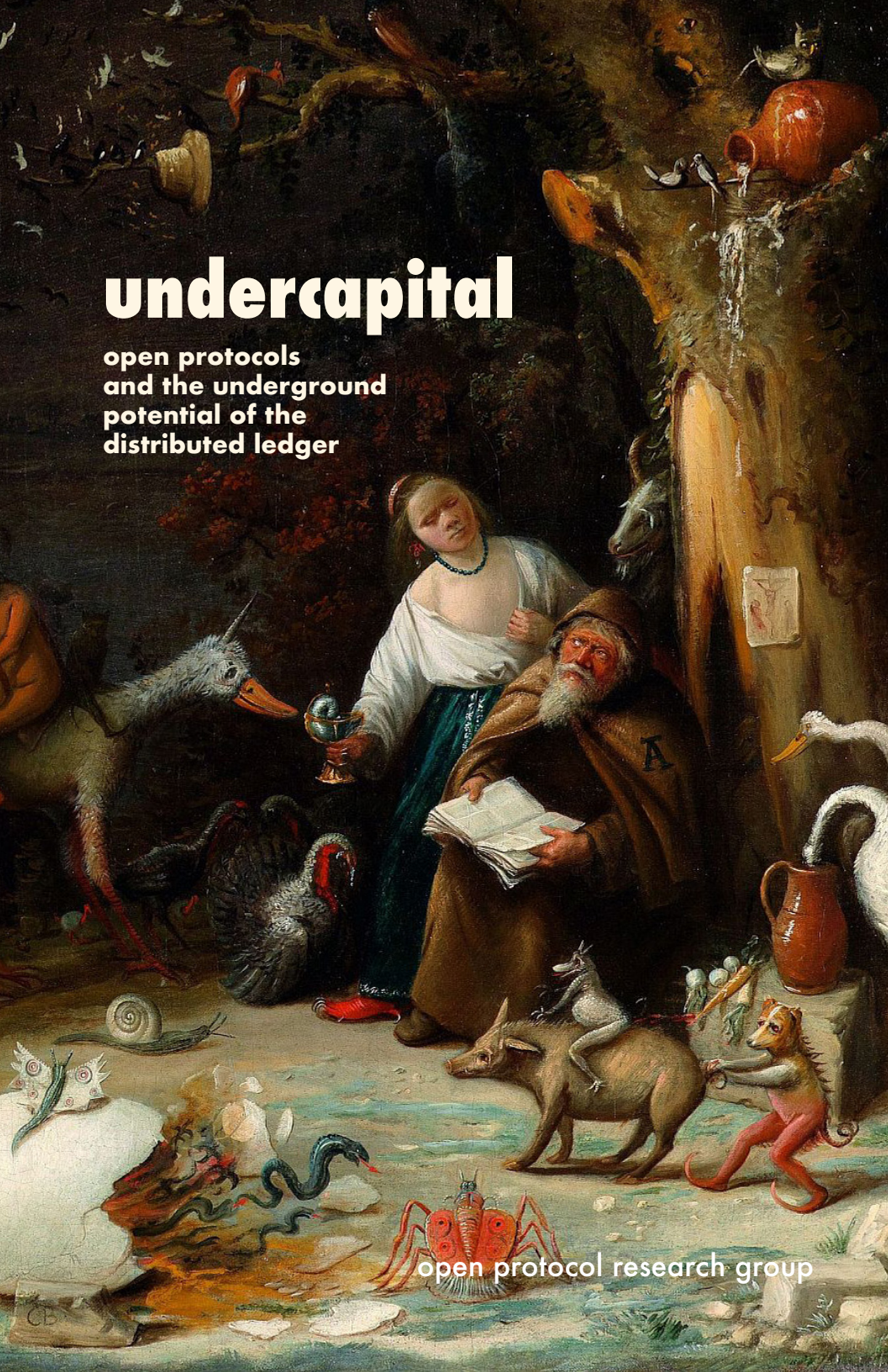
**open protocols
and the underground
potential of the
distributed ledger**

open protocol research group

undercapital:
open protocols and the underground potential of the distributed ledger

open protocol research group
mackswolf vengi exeunt

Acknowledgments

The following essays were penned by Exeunt, but their proper author is the Open Protocol Research Group. We worked them out after dozens of hours of conversation, the concepts seeming to grow out of the cracks between drinks at B-Side Tavern, spliffs at the Borthwick house, the drone silence of transcoastal drives. (Who knows? The concepts have their own life, none of our business.)

Agency can be distributed across a plane that is indifferent to "life."

- Mark Fisher, *Flatline Constructs*

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Prologue

Toadvine sat watching him as he made his notations in the ledger, holding the book toward the fire for the light, and he asked him what was his purpose in all this.
The judge's quill ceased its scratching. He looked at Toadvine. Then he continued to write again.
- Cormac McCarthy, Blood Meridian, or The Evening Redness in the West

The tradition of the illegible teaches us that the state in which we live is not the only state. They were witches and journeymen: benandanti and beguines, gothic masons and shamans, ranters and levelers, upended commoners, guerillas, fugitives. Their works were recorded in incidental reports, the rare testimony, more often the records of enemies. Their rebel crafts, their 'techniques of ecstasy' and escape held open the door to other worlds, even as they were deprived of the power and voice to reproduce those worlds. Saidiya Hartman writes, investigating the sparse archives of black women in the Atlantic slave trade, "We only know what can be extrapolated from an analysis of the ledger or borrowed from the world of her captors and masters and applied to her."[1] For those women, as for so many others, the archive was the wall of impossibility, the dread impasse - "a death sentence."

There were those in later years who were energized by the intrigue, the fly-by-night danger and the eros of the hiding. The antisocial thesis of world-building and justice - the mutinous underground, squatting in the warehouse district, drinks at Eve's Hangout, anonymous dispatches in wheatpaste or graffiti. Glued locks on Black Friday - raves, mixtapes. Life during wartime. They managed to inject the Ledger with insurgent messages of difference from the greater cosmos. If those messages were in the end always blotted out, co-opted by the utter blanket of sameness, they could care less - their medium of consistency was refusal.

We owe our breath to their imaginative labors. But the era of refusal is over. At the end of a long season of sameness, we need to commit to the open realization of difference. Put out the candles, roll up the sleeping bags, bring it out to the light. Now, when a million dissenting worlds have been erased, and a million more are under threat, too much is at stake. Necessity has

1 Saidiya Hartman, "Venus in Two Acts."

spoken. The fruit trees, the creeping things, will clap their hands in the open day, or they won't clap at all. It is no longer enough to be illegible.

Just because we've discerned the way out to the panorama, and we've heard the demon talks of trees and circuit boards, doesn't mean we have to be supernatural about things. Leave it to the interior to wallow in ineffectual delusion (that is, after all, the very name of the interior). The path to the many worlds has always been guided by the material problem at hand, a heretic faith in the terrain. Our foes are between a rock and a hard place, the unreality of their vision like walls closing in on them, while before us is an open landscape of practical action. In the rough singularity of the object-at-hand is the great materialist insight: *mechanics is perfectly compatible with the intuition of infinity*.

The nation-state is a kind of cybernetic organism, a "given umwelt": it is simply in its nature to preserve itself. If it does so through coercion, if it enacts violence and brutality, if it props up the legibility of systems that cause homogenization, widespread complacency, disempowerment and species death, it is not a question of evil. Its actions shouldn't be read through the lens of moral strife, or as if on the stage of some historical theater. These self-serious frameworks only restate the same compositional fallacies one began with. If the nation-state spreads violence and disempowerment, even depends on it, it is not out of evil, but simply a folly in design, a patching over of a compositional disharmony.

We avoid moralization and theater because that thinking distracts from the compositional issue at hand, the material techniques for joy and difference creation that are available to us, given an attitude of optimism, investigation & empiricism. If a bureaucratic machine maintains in compositional disharmony with its environment, even with the most persuasive facade of utility, maturity, gritty realism & necessity, we nonetheless know that it's rooted in the most foolish, sentimental illusions, the unreality and melodrama of those who would kill their neighbor to avoid investigating themselves. There's nothing profound, no grand drama in this willful ignorance. We must think about the world compositionally to see that the emperor wears no clothes.

The main reason so many of the institutions around us persist in this disharmony is the standardization (what James C. Scott calls the "synoptic legibility") welded by the nation-state. The state seems to be committed to power concentration both strategically and metaphysically - that is, as a means as well as an end. Those institutions that are not aligned metaphysically will, by Overton's coercive hand, become aligned strategically. This standard of legibility is insidious in that it is able to make invisible what it leaves out — namely, those techniques and practices that operate under logics of

abundance. Mediated through the sterile lens of financial extraction, those practices lose their ability to reproduce, breeding the complacency the state needs to rule unchallenged. This process has traditionally been referred to as Enclosure - you could also call it interiorization.

When we share knowledge, its power is reproduced, same as with friendship. Thinking of Landua and Roland's eight forms of capital, intellectual capital and social capital don't easily lend themselves to control and cartelization, as the more they are used and shared, the more abundant they become. When power concentration is the goal, this capacity for reproduction represents a threat to be neutralized. Represented through the synoptic legibility of the finance state, these assets can be manipulated and hoarded, their power defanged. Conveniently, the insecurity left in the wake of their scarcity can be used to justify statist interventions. If an institution wants to participate in dominant networks of material and informational exchange, it must speak this impoverished language, and police its own countervoices (the life of the state apparatus depends on it).

The Ledger is like a massive bureaucratic complex, encompassing a variety of institutions through which the world, with its panoply of values, is mediated and made sterile. Still, it would be wrong to say (as some have) that we are living under a "full subsumption of capital." The commons remains, with its corridors of fugitive value, its secret networks. Everywhere we see its little intimacies, affections, experiments in worldbuilding — the joys and alchemical designs of the innocent & the unsuperstitious. But these joys have too often been amnesiac. Without legibility, the infrastructure necessary for these movements to persist, to repeat and create real change is unavailable to them — they're like water droplets, evaporating into air before they can form a flow. If the degradation of the commons under the extractive rule of financial capital is the single goal of the Ledger and its instruments, what is needed to counteract that power is a dissenting rule, an underground formalism, a generalized grammar for realists to to know and produce with each other, to co-produce each other in a grounded space of material imagination beyond institutions.

An Introduction to Open Protocols

Last year, Portland's crypto localist initiative Ethereal Forest - which had already been concerned with intersections of web3 and urban resilience strategies - went a step further in its research practice to establish the Open Protocol Research Group. This group aimed to explore a formal isomorphism between open-source web protocols and the informal, culturally inflected, and freely propagated knowledge sets and practices that seem to animate a large dimension of urban life.

Open source social protocols aren't necessarily compelling in themselves - handwashing as a practice, for example, is powerful but (for us at least) ultimately banal. The sort of open protocols we're concerned with have cultural accompaniment, emergent practices and evolving norms meant to preserve a twin commitment to divergent exploration and material grounding. In short, open protocols are discrete social and technical protocols woven together into a compound cultural protocol of improvisational, empirical imagination.

"Open" in the phrase "open protocols" therefore doesn't only refer to the technical sense of being memetically open or freely reproducible, but the cultural sense of containing an injunction to free empiricism. They are not just open source and autonomous, they are *exploratory*.

Open protocols gain their energy from a "prefigurative circle" - reminiscent of Chris Kelty's "recursive publics"[2] - wherein empirical imagination leads to technical improvisation, which further encourages empirical imagination. To the extent that these investigations depart from normative boundaries (Overton windows), they do so only to assert room for more empiricism, and never to argue for complete or replacement "values."

Thought in this way, the practical inspiration of an Eric Raymond, who discovered open source "values" by way of an empirical imagination ("what works"), can find mutual legibility with the psychonauts (Terence McKenna, Peter J.Carroll) whose open chemical and psychic experiments are refined only to permit more creativity… so as not to be *stuck*. The plain injunction

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2 Christopher Kelty, *Two Bits: The Cultural Significance of Free Software*.

to empiricism endorses hardware hackers, musicians, permaculturalists the same - those who have abandoned conversations about values to refine protocols of open experimentation that foreground material wisdom over ideals. Digital, material, chemical or psychic, open protocols are flywheels of open-ended, empirically grounded practice.

A Note on Maker Metaphysics

Maker metaphysics aren't stated explicitly, but expressed in the actions of makers. Makers might be Christians, Buddhists, or Nihilists, but their actions and collaborations - during the time when they are making - operate under an open & practical ontology with the following features:

 - **Subject and object positions unsettle, expand and retract**. Inter-subjectivity (including with the inorganic) and extended cognition are taken for granted, so that intersubjective or cyborg forms are welcome before the practical judgment of "what a body can do."

 - **Truth claims are recursively practical**. The ground of being is considered real but fundamentally plural or super-objective - lacking the ability to cognate the whole directly, makers operate in rough, peripheral and interim truths. These truths suffice to the extent that they are able to engender more such truths.

 - To the extent that scientific positivism posits a universal objectivity, maker metaphysics follows a **pirate** or perhaps **gothic empiricism** that poses the investigation of reality by way of the senses as an infinite rather than a finite game.

If participation in these open protocols often has a tribal character and onto-logical significance - shared discovery and belief in the ability to mutually constitute new material realities - that tribal knowledge often has to do with the immensely fragile nature of the "open" side of the equation. Cooptation and capture is a constant threat to open protocols - and as participants seem innately aware, they must be nursed and protected. Where attitudes of enclo-sure are ubiquitous, this takes creativity and even audacity.

Of particular interest (and relevance to the web3 analogy) is a strategy of propagation and self-preservation that open protocols nearly universally adopt - the use of an array of traditional institutional forms to purposes *other than they were intended*. Open protocols are secured and supported by busi-nesses that actively sabotage their own opportunities for profit, by nonprofits that do not seek funders, sector dominance or brand recognition, by small government offices that quietly act in practical accordance with the needs

of a community in defiance of state directives. They hijack instruments of enclosure and repurpose them to alternative ends. We call these forms - borrowing from the work of Primavera di Filippi and Jessy Kate Schingler - *extitutions* in order to emphasize their subjugation of traditional institutional objectives to the ownerless, stateless, extitutional form of the open protocol.[3]

To the extent that we include "socio-technics" in our definition of empirical exercises, extitutions are some of the most profound vectors of imaginative desire for open protocols.[4] They exist on the front lines, finding quiet ways to violate the prohibitions that make up the overton window of social and extrasocial organization. These prohibitions are *weak* or indirect in nature, enforced by way of standards of organizational legibility that make too much experimentation unviable or even illegal.

The stakes of legibility are ultimately whether an organization or institution can sustain and reproduce itself over time; the possibility space is always determined by a curve of resource dependency. Because of this, extitutions often wear institutional masks, forever negotiating the demands of standard- ization with the desire for experimentation. Some succeed in this balance; some become captured, some simply fail (as we'll see in later bulletins, fail- ure from an institutional perspective is often an effective strategy of success for extitutions).

For the Open Protocol Research Group, this is where the usefulness of the web3 analogy really comes in. The story of web3 - colored as it may be by scams and ponzis, by extractive actors and zero sum games - is nonethe- less the story of self-constituted resource environments. It is the story of a discovery of mutual legibility forged outside of the compulsions of dominant bodies, outside of the enforced legibility of coercive institutions. It is the story of *formalization without standardization*.

The conviction of the Open Protocol Research Group is that the open proto-

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3 While this usage of the term departs somewhat from the foundational texts of exti- tutional theory, we think (after much debate) that it maintains the spirit of the project: extitutions are organizations where the institutional dynamics and determinants are actively subjugated (within practical constraints) to extitutional concerns. See Jessy Kate Schingler & Primavera de Filippi, "An Introduction To Extitutional Theory", and Jessy Kate Schingler, Primavera de Filippi, Tony Lai and Lou Viquerat, "The Lazega Encoun- ter: Provoking Extitutional Theory"
4 Benjamin Life proposed this as an important dimension of the term, and we heartily agree. In fact, the inclusion of technologies of self-governance and social coordination in the dominant sense of "technology" - a battle fought by Ursula LeGuin, Arturo Escobar, the Black Panthers, and many of the counterculture movements of the 1970's - has been near and dear to our crew from the start.

cols that thrive in urban spaces have much to gain from the self-constituted resource environments of web3, strategies of mutually determined formalization that largely bypass or ignore the standards of dominant, coercively grounded institutions. More importantly, though, the web3 space has a great deal to learn from the open protocols themselves, hybrid forms that have found strategies for survival and propagation of commons-oriented actions *within* standardized forms (or at least forms that have appeared standardized at face). The collision of these two strategies in a broadly viable extititutional mirror of our current society is, for us, inevitable.[5]

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5 At the time of writing, Rithikha Rajamohan's wonderful Dispatches From Cascadia had just been published, a work of speculative fiction about protocolized governance in Cascadia.

Sketches Toward a Theory of the Protocol Underground

The movement Philip groans—the undercommons, the underlanguage, underground, underwater, which is the people's macrophone—wants to know/make the relationship between form and instability, when the informal becomes a form of life precisely insofar as it is where forms of life come from. There is an ecology of unaccountable self-positing, unaccountable because what's more and less than self, disposed and without position or deposition, makes this positing in refusing being bought and sold. The logistics—the analogistics, the ecologistics—of the unaccountable population is barely audible, given only in distortion, which is our plain of code.
- Fred Moten (on M. NourbeSe Philip), Black and Blur

Aesthetics

Aesthetics, vibes, intersubjective atmosphere may seem like externalities, inconsequential surplus to the "real world" of finance and institutions. But this is only sleight of hand, a distortion of the diffuse, field-like character of power and empowerment. Power (politics), in its relationality, is nothing less than this matter of feeling. The philosopher of technology Bernard Stiegler opens his *Symbolic Misery: vol 1 The Hyperindustrial Epoch* (2014) with the following: "The question of politics is *a question of aesthetics*… I use the word aesthetics here in its widest sense, where *aisthēsis* means sensory perception, and where the question of aesthetics is, therefore, that of feeling and sensibility in general."

The object of this piece is the way that aesthetics relate to regimes of structural violence, and the way crypto might fundamentally intervene in and subvert the hegemony of those regimes. In the distributed ledger, we may have the germ of a culture of aesthetic autonomy and free association without limit, coordinating infrastructure unburdened by the pall of coercive relations. Beyond the feeling of administrative bureaucracy, the atmospheric, oh so-subtle implication of violence that permeates the legally sanctioned institutions, we are on the verge of discovering legitimacy by other means.

And when we get to the party, having climbed the plateaus, to reach the plain of an unaccountable and unadministered population, the protocol underground will be there waiting for us.

Undergrounds

Undergrounds are political. The first use of the term in the sense of "clandestine cultural behaviors" is attached to the American underground railroad, escape routes from the South. The origins of that phrase are disputed: a 1839 newspaper article quoting a young slave who imagined a magical "railroad that goes underground all the way to Boston," or words elsewhere, around the same time, referencing slave catchers who, having lost the trail, said that "there must be an underground railroad somewhere."

It was first used to refer to subcultures in the early 50's, fresh off of the memories of the underground media and military campaigns of the French Resistance. At the time, of course, obscenity laws and rigid conformity in the United States meant that alternative aesthetic movements faced repression that rivaled that of Vichy France. If the atmospheres of secret queer gathering places, multi-racial jazz shows and beatnik drug dens didn't quite have a militant air to them, the codes and protocols established to protect them were as elaborate as those used to evade the Sicherheitsdienst.

(Riddle: what kind of knowledge is both freely available and deeply secret?)

Undergrounds are political, and politics is a question of aesthetics - sensible communities, intersubjective atmospheres, *vibes*. Stiegler will go on to argue that the dominant "sensible community" of today is "entirely fabricated" by technologies of control: "it has become a matter of controlling the technologies of *aisthēsis* (the audiovisual or the digital, for example) and, in this way, controlling the conscious and unconscious rhythms of bodies and souls; modulating through the control of flows these rhythms of consciousness and life. … aesthetic conditioning, the essential feature of enclosure in these zones, has replaced aesthetic experience, making it impossible."

In the typical tenor of old guard cultural critics, Stiegler wants to pose this aesthetic disempowerment as total, offering little evidence to argue the point. While a general attitude of aesthetic disempowerment and consumption is certainly present in the West - their most severe forms within the guts of administrative institutions, what David Graeber has called "dead zones"[6] - it is equally true that there are zones of aesthetic self-determination, willfully defiant against administrative or commercial capture, *fucking everywhere*.

6 See David Graeber, "Dead zones of the imagination: On violence, bureaucracy, and interpretive labor."

Here at the Open Protocol Research Group, we are most interested in how these zones of defiance, these undergrounds, have emergently protocolized, both as a response to legal or extreme cultural prohibition and as a strategy of avoiding institutionalization, with its tendency to dampen or outright restrict the aesthetic autonomy of its participants. When aesthetic practices are outlawed, they respond by protocolizing - one can't effectively make storefronts or centralized academies for illegal practices. When they protocolize, they become more pluralistic. That pluralism solidifies their resistance or illegibility to institutional capture.[7]

Examples of this protocol underground can give us hints as to their plural and creative character. Take for instance, sadomasochism. Originally a diagnostic portmanteau referencing sexual practices from the work of Leopold von Sacher-Masoch and Marquis de Sade, sadism and masochism formalized into an underground scene in the 70's. In constant legal flight from sodomy and obscenity laws (due especially to association with the gay community), the scene spread by means of clubs and especially handbooks - notably, Larry Townsend's *The Leatherman's Handbook* (1972) and later, Jay Wiseman's *SM 101: A Realistic Introduction* (1992).

In these books, one finds a prioritization and careful negotiation of mood or intersubjective atmosphere with rigorous and elaborately defined considerations of consent. Consider Jay Wiseman's "two squeezes" technique. A proactive measure meant to supplement safe words and provide active and continual consent, the dominant interrupts a session by squeezing the sub's body twice.

The two squeezes ask "are you OK?"

The submissive replies that they are OK by giving two squeezes in return. The dominant can learn a lot about the submissive's state by noting how the submissive returns the squeezes. Two quick, brisk squeezes show that the submissive is alert and "in the room with you." Two long, slow squeezes show that the submissive is OK but "deep under."

No response after a certain time, and the dominant breaks the performance to check in and perhaps end the session. The technique "provides a simple,

7 What happens next is a research question. It would seem that pluralism tends to evolve into a mature fragmentation that eventually restages the question of institutional legibility, but the assumption begs the question of what exactly you are tracking - an aesthetic or an underground? Aesthetics congeal and face cooptation, undergrounds protocolize, fork, positioned as they are on a "cutting edge." When considering the terms, the noun "aesthetics" feels passive and descriptive, the dominion of the conditioned. But "underground"? It rolls off the tongue quite nicely as a verb, doesn't it?

workable way for both parties to communicate that they are all right without either having to break the mood verbally."

Another example of an aesthetic scene that protocolized as it fled culturally prejudice legal action is the UK Free Party Movement. Key dates for this scene: 1990, the passing of the Entertainments (Increased Penalties) Bill, "which raised fines for unlicensed parties from £2,000 to £20,000 with the possibility of six months inside for organisers." Later that year, the formalization of the sound system collective in North London called Spiral Tribe. May 1992, the biggest illegal rave in UK history in Gloucestershire (infamously known among both Thatcherites and pirate teknivalists as "Castlemorton"). 1994, the Criminal Justice and Public Order Act - which "outlawed people gathering listening to music "predominantly characterised by the emission of a succession of repetitive beats.""

Free parties dated back to the New Age scene in the eighties (see the 1985 Battle of the Beanfield) and before, but Spiral Tribe escalated the underground attitude, mainly by insisting that every party they threw fell beyond legal sanction. As member Sebastian Vaughan later wrote, "The rave scene seemed to be oscillating towards paid parties and clubs again, and we just said: 'No way! It's got to be in a warehouse, it's got to be dirty, it's got to be illegal and it's got to be faceless'." The ecstasy fueled and elaborately vibed out acid house parties were always free, infected by the attitude of generosity seen in so many aesthetic undergrounds.

More importantly, they were sometimes extremely hard to find. Listening to Seana Gavin discuss her time in Spiral Tribe, it seems to have been a decade long, transcontinental exercise in getting lost. [8]This was a feature, not a bug. A party, it turns out, takes on a radically different character- an enchantment, even - when everyone present had to go through an ordeal to get there. *12 kms from that pub in poolbrook. Once you make it to Welland, follow the lights*. The obscure and illegal nature of the locations constructed an artifice that repelled complacency and consumption, instead attracting high agency, participation, festive enthusiasm. *If you've hit Rye Cross you've gone too far*.

Overgrounding

The underground scenes worthy of investigation are many - consider the libertarian generosity of the price suppression agreed upon by LSD production families in the 70's, or the manic protocol creation of direct action groups in 2019 Hong Kong or New York as hybrid strategies cross contaminated through continents and different authoritarian atmospheres. Think of the technological détournement in the Bronx that turned drum breaks into a ve-

8 Rave to the Grave Ep 22: Seana Gavin.

hicle for a whole grammar space of urban poetry. We intend to do that work. But in these introductory remarks, we can outline a couple key features of the protocol underground, in the hopes that by defining them, we might - in an action as magical as a visionary underground railroad - *overground* them, make of them repeatable and memeable practices, formalized without being standardized.

What are the exact qualities that we are attempting to "overground" here?

a). Mutual assumption of **high agency**. Undergrounds make play of peril, finding just-sufficient safety in the decentralized ingenuity and practical sense of crowds. The unadministered, it's been observed, take on a heightened sense of responsibility that paradoxically made pirate events "safe spaces" in multiple senses of the term. (Those who would seek to delegate basic material safety and vigilance to a third party are better off at expensive and highly insured establishments, nested within the promise of lucrative litigation should host guardians misstep.)

b.) Robust culture of **affirmative consent**. The twentieth century patriarchal establishment was defined by its ambivalence to this term, and it's a horror-comedy watching institutions try to work through their embedded contradictions to service its supposed cultural vogueness. As an elaboration of the sense of responsibility and presence mentioned above, undergrounds have been avant gardes of mutually affirmed consent. Vibes are network forms, and supremacy is a dead ecology.

c.) **Participatory** and **pluralistic aesthetic**. San Francisco, the year is 1977. Do you go see Star Wars: A New Hope opening at The Coronet, or a replay of Rocky Horror Picture Show at a dirty theater in the Tenderloin, where the crowd is raucous with participation, and every night is different? Undergrounds loath passive consumption. The divinity of the scene is always won by the blood of an aesthetic monarch, whether that be a politician or a film director. Given robust enough conditions of the two described above, an emergent social production is always on the table. (*Buy an umbrella, you cheap bitch*.)

The latter point, to return to Stiegler's sense of aesthetics as the question of "feeling and sensibility in general," signals that there is no objective vibe, there is no monopoly of the real. Feeling, sense, atmosphere are relational, and without institutions to impose a mystified neutrality - the oppressive, monoculture din of a Walgreens, bank, or a hospital - we are challenged with the responsibility and freedom to constitute for ourselves what the sense of

things are, and in so doing, redefine what possibilities exist in them.[9]
Why are standardized institutions a threat to the above qualities?

  - embedded hierarchy and bureaucracy
  - compartmentalization and specialization
  - "interpretive labor" and the opacity of structural violence
  - commercialization, spectacle, passive consumption

Most crucial of all to the creative possibility described in the above pages, and most singularly characteristic of the underground, is the ever-maintained and rigorously exercised and protected consensuality of relations. It's the ground everything else rests on. It may be said that, once such an atmosphere is established, the rest of the underground qualities will inevitably follow. The fact that we see them so rarely in so much of our lives points to the most damning and prohibitive dimension of institutional regimes - the structural and implicit violence they weld, they're ultimate foundation in an atmosphere of force and imposition - "the dead zone."

Distributed Ledger Technologies may offer a chance to do the impossible, to scale the underground, embolden communities everywhere with participatory agency over the aesthetic environments they inhabit - the feeling and sensibility that shapes the structure of the possible; to make of a complacent mass of consumers and bureaucratic subjects high agency and active participants of reality; and most importantly, to coordinate at scale in an absolutely non-coercive context. The sensibility of the underground echoes in crypto culture in the open protocolization of its innovations, the plural and unpoliced divergence of its aesthetics, the persistent and uncompromising "sovereignty" of its participants.

What will it look like to send a wave back, providing the culture with the tools needed to formalize without standardizing, to overground the high agency, consent-based, aesthetically empowered worlds of the underground?

DLTs cannot instill in the population a desire for agency. Where complacency abounds, it will continue to; where passivity reigns, it will continue to reign. What we can do is provide substrates for consent-based social organization and social production - infrastructure that relies on mathematics and thermodynamics rather than weapons and terror to maintain its hardness. We can provide forkable code that encourages pluralistic adaptation, especially of the programmable regimes of value (tokens) and instances of alignment (DAOs) that allow high agency participants to coordinate.

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9 This "sense of possibility" is a discrete and profound type of currency, a ninth form of capital to be sure - call it "virtual capital."

This is true of the technology - but if we are to successfully continue it ourselves under these underground values, we have to look at our own culture in the mirror and consider deeply its complacency. How is the culture of personal sovereignty and the generous protocolization we take for granted in our space animated by relative access to VC wealth which is ultimately sourced from deeply coercive regimes? How can we design in the direction of revenue won from positive sum interventions in extant extractive industries rather than the zero-sum game of price speculation?

A potentially more fraught area is the onboarding problem - letting institutions like Coinbase lead the charge on scaling means we'll be left with castes of individuals that relinquish custody or other types of agency for convenience while technocrats enjoy supposed self-determination, even though we know that when some are in bondage no one is free. But, typical of the prefigurative circle, the ends are also the means: identifying undergrounds that correspond to these values, that persist in rhythms of open protocolization rather than brands and institutions will mean finding those that are practiced in the peril and labor of high agency, that take their freedom seriously. If the mainstream conversation on crypto is finally initiated by its association with the most aesthetically autonomous and high agency elements of our culture, the true implications of its non-coercive ground will be appreciated. If it's introduced by way of extraction and consumerism, it will be eaten up. (*and forked, and birthed again, renewed under conditions of peace & free association, and - wait, which way is it to Castlemorton?*)

The following essay marks a significant expansion of both the open pro-tocol strand of our research and the archival detour into what we have called "the protocol underground" that precedes it in this zine. In it, we attempt to explain the behavior of the underground through the lens of the virtual, a philosophical concept for the real and materially embedded trace of potential that exists within or perhaps alongside the world of proper things. This trace is articulated in a polyphonic voice, laden with indeterminacy and subtlety. It resists mechanization. To perceive and generatively engage with it requires an atmosphere of nonviolence and open experimentation. For these reasons, it is anathema to institutions.

We propose to understand the behavior and strategic uniformity of the underground as the accumulation of spontaneous tactics for avoiding violent and mechanistic systems in order to approach, in a wide range of cultural forms, the virtual. Once established, we suggest a path for-ward to formalize economic systems around this underground intuition, proposing virtual capital as an orienting and generative frame for real economic games. Because it is expressed in intersubjective & relation-al fields rather than classical objects, building economic systems that prioritize virtual capital could require an overhaul of design thinking analogous to the overhaul of classical physics for the indeterminate field-mechanics of quantum physics. To cognize these forms may require an ontological ordeal, a conversion (of which there are many rumors in recent years). Lucky for us, we have the strategic intuition of the under-ground to follow, a world of intensive value we call undercapital.

Undercapital: The Extitutional Life of Money

> *"Money institutionalizes a social relation—or, rather, a set of relations of social production and reproduction."*
> *- Michael Hardt & Antonio Negri, Assembly*

Our previous piece took us underground, to spaces where direct and participatory access to the aesthetic environment reigned and the injunction was free association within robust contexts of affirmative consent. We went looking for these core underground values, but we discovered along with them living zones where alien forms of capital dwelled: in the 1980's underground LSD market, the abandoned warehouses and open valleys of the UK free party scene, the bedrooms of deviants and sadomasochists, the two variables from which all the participatory action was shaped seemed to be consent and *atmosphere*. In a footnote, we were compelled to propose a ninth form of capital: virtual capital, the sense of potential, the empowering penumbra or haze of objects and entities as they verge on the edge of what is to come.

The philosopher and translator Brian Massumi may be the major contemporary scholar of the virtual, a key concept in the work of Gilles Deleuze and a key proto-concept or theme in work of the natural philosopher Henri Bergson. Consider Massumi on Bergson's reading of Zeno's paradox: "*When Zeno shoots his philosophical arrow, he thinks of its flight path in the commonsense way, as a linear trajectory made up of a sequence of points or positions that the arrow occupies one after the other. The problem is that between one point on a line and the next, there is an infinity of intervening points. lf the arrow occupies a first point along its path, it will never reach the next-unless it occupies each of the infinity of points between. Of course, it is the nature of infinity that you can never get to the end of it. The arrow gets swallowed up in the transitional infinity. Its flight path implodes. The arrow is immobilized.*"

Bergson takes Zeno's paradox as a gesture to a dimension of reality that can't be understood on the representational plane - an element of immanent continuity or in-itselfness that can't be broken up into component measurables. For Massumi, these different modes of reality can be thought of as "intensive" and "extensive." The arrival of the arrow at its target testifies to the *intensive* nature of its trajectory:

 "*Extensive space, and the arrested objects occupying the positions into which it is divisible, is a back-formation from cessation. The dynamic enabling the back-formation is "intensive" in the sense that movement, in process, cannot be determinately indexed to anything outside of itself. It has withdrawn into an all-encompassing relation with what it will be. lt is in becoming, absorbed in occupying its field of potential.*"[10]

Elsewhere, we have referred to the prefigurative circle, borrowed from anarchist politics, where means and ends are fused. In the underground web space, we sometimes call this an "infinite game," a game with no intention of ending, played for the pleasure of itself. In philosophical terms, you could say that the telos of such a game is fused with the process, or the process itself is the *telos*. The intensive is like a metaphysical extension of this logic: the world of entities seen as they gesturally embody their potential, beneath any singular embodiment. Bergson thought of it as an object in *duration* rather than linear time; those well-versed in certain spiritual traditions might think of it as the "subtle body" of an object or environment.[11] Practically, this points us in the right direction: perceiving and being affected by this dimension requires a patience or subtlety, and a peace.

It's our claim that this "intensive" reality of things in their becoming is the object of the underground, the organizing principle for its many disparate articulations. Of course, to speak of "the underground" is

10 Bergson takes this impression of the intensive as far as an imperative in Creative Evolution: "We should no longer be asking where a moving body will be, what shape a system will take, through what state a change will pass at a given moment: the moments of time, which are only arrests of our attention, would no longer exist; it is the flow of time, it is the very flux of the real that we should be trying to follow."
11 "An object is obviously not subjective. But if atmosphere is the elemental reality of the envelopment of potential surrounding and suffusing a locus of occurrent becoming, then objects have atmosphere. … This object, in addition to its sharpened functions, obscurely influences through the manner in which it carries a penumbra of alternatives whose edges will never be exhaustively charted. The feeling of the inexhaustibility of the object, in process and as propensity, is its aura: that by which it outdoes its utility and, more generally, exceeds intentionality…" (Massumi)

already to assume a unity. In the previous piece, we called it "the protocol underground" to emphasize strategic patterns that come from lack of access to institutional sanction. Here, we look at it from the underside: protocolization as a strategy of flight, avoidance of institutional sanction in pursuit of the thing that institutional presence diminishes or destroys. This thing is anathema to violence, and to mechanization; it requires attention, and a willingness to hazard the far reaches of subjectivity. It is only experienced through an *intersubjective ordeal*, attention in a state of withdrawn ego. (What's it feel like? A transpersonal swell of electricity in your spine.) We call this intensive field or substance "the virtual."

The Virtual

The virtual is a peculiar term, ripe for misinterpretation, especially in the context of the web. The philosopher Levi R. Bryant does as good of a job as any of explaining its nuance, and is worth quoting at length.

"*...virtual is not to be confused with virtual reality. The latter is generally treated as a simulacrum of reality, as a sort of false or computer generated reality. By contrast, the virtual is entirely real without, for all that, being actual. The term "virtuality" comes from the Latin virtus, which has connotations of potency and efficacy. As such, the virtual, as virtus, refers to powers and capacities belonging to an entity. And in order for an entity to have powers or capacities, it must actually exist. In this connection, while the virtual refers to potentiality, it would be a mistake to conflate this potentiality with the concept of a potential object. A potential object is an object that does not exist but which could come to exist. By contrast, the virtual is strictly a part of a real and existing object. The virtual consists of the volcanic powers coiled within an object.*"

Let's take this foundation and continue into some orienting statements, unlocked with some attention to potential areas of resonance with or relevance to the underground:

The virtual is "real but not actual." Deleuze once called himself a "transcendental empiricist," interested in disruptions to the subject-object paradigm (transcendental moments) only to the extent that they were available to direct sensible experimentation, i.e., that they were real. The virtual is an insistently materialist or physicalist concept: though it may refer to experiential fields that have often been associated with the supernatural, it places them squarely on the plane of nature. Concert-

goers, artists, sex lovers or even athletes are familiar with this order of substance that is difficult to talk about, but palpable, there to be encountered by all participants who would hazard to enter into an intersubjective key.[12] When the participants fail to reach the critical mass of this delicate recursion, its absence seems equally palpable, felt independently by all in the room. There are times in history where its assertive reality changes the course of events dramatically (try a quick search of The Mute Girl of Portici, 1830).

The virtual expresses objects and entities in their multiplicity.
Continuing on with the common notions of this crowd-cognizance of the virtual, consider the refrain heard over and over again to describe such notable events (or scenes, or summers…): "*At that moment, it felt like anything was possible.*" If you asked someone who made this claim what exactly was possible, what would they say? In our reading, the phrase pushes against its own grammar. Its referent is not any given thing, but *anything*, the irreducible multiplicity, the potential expressed in its intensive plurality, not at all in the service of the actual. For both Bergson and Deleuze, it is the submersion in time, the intractable blurriness of duration that affords it this freedom. And duration can't be abstracted. *Sorry - you just had to be there*.

Relation to the virtual entails a marriage of means and ends. The virtual loathes representation or commercialization, half-baked metaphors or morality tales: because it is prefigurative and intensive in nature, it stands only for itself. Any teenager can tell the difference between the cultural products of focus groups (or the tv series scripts of grad students) and the eccentric or disturbed creativity of those who bothered to turn off the faucet of means and ends; who ventured to listen to the "penumbra" silence of the material world in order to create an honest and self-contained impersonal expression that "cannot be determinately indexed to anything outside of itself." Outside of the instrumentalizing imperatives of institutions, the actual that is produced can be grounded in the savage and pluralistic vectors of the plane of nature.

Take the nineteenth century critic John Ruskin's description of the gothic builders, who he argues must have been "altogether set free" given their rude and obstinate creations, "creations of ungainly shape and rigid limb,

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12 The psychedelic sex scene between K, Mariette and the disembodied Joi in Blade Runner 2049 seems to us to be an important visual or visceral approximation of the perception of the virtual.

but full of wolfish life."[13] He saw in their disturbed, gargoyle eccentricity "a profound sympathy with the fulness and wealth of the material universe." Their imagination appears conjured from the stone, a materialist imagination, gained not by imposition but by a transpersonal ordeal and a negotiation with the material conditions before them. We see it in the psychedelic and nonsymbolic color-codes of Edgar Allen Poe's "Masque of the Red Death," the barely melodic screams of Diamanda Galas, Sun Ra's space outfits, Robert Chamber's Yellow King: raw visceral expression that is anything but metaphor, a record of a material encounter beyond objects.

The virtual is available to strategy and formalization even as it remains resistant to standardization. As we have seen in the "two squeezes method" of Jay Wiseman's s/m manual outlined in the previous essay, undergrounds have been known to generate detailed strategies for attaining access to the virtual. To say that mechanization or instrumentalization by standardized regimes results in harsh diminishment of the virtual is not to say that some manner of repeated protocolization isn't needed. The protocol underground is nothing but these intergenerational and cultural strategies for engaging the intensive. (As we will see later, these *open protocols* differ from institutional ones insomuch as, rather than dealing with objects and atoms, they are oriented toward a field or phase space, a polyvocal order-of-things full of divergence and indeterminacy.)

The virtual, in brief, is a real and powerful dimension of the material world, but it appears phantom to many because it does not correlate with naked subjects. To relate to it and be empowered by it depends on a porousness in one's individuality, an unthought, known as much to craftsmen and athletes as to religious mystics and artists. In the realm of institutions, whether nationalist, commercial, religious, we see its power captured and chained to brands, figureheads, flags, sentimental imaginals far removed from the eccentricity and in-itselfness of the plane of nature. It is beholden to a *telos*, always something or someone else's end: mystified, antireal, rooted in domination. The underground, in the accumulated, impersonal intentionality of its designs, asserts the autonomy, ubiquity, and democracy of the virtual.

An underground value-accounting of the virtual as a ninth form of capital would need to somehow follow this prefigurative circle. It would seek to

13 John Ruskin, "The Nature of the Gothic" in The Stones of Venice, Vol. II.

expand rather than reduce and control. As we have learned from the underground, this means asserting a savage and uncaptured pacifism, defiance of the tendency of violence (especially hidden or implied, Graeber's 'structural violence') to drain the atmosphere, divorce means from ends and fill the room with anti-aura of rigid persons and things. Take us literally when we say that the objects in a space withdraw their power when supremacy is in the room. "Anything will give up its secrets if you love it enough"[14] - the inverse is true. The underground long since moved this knowledge from poetic insight to actionable process. The decentralized web can iterate into this mode, join forces, become underground. But, in the tradition of design pragmatism - the rational inspiration that informed the eight forms framework in Gregory Landua and Ethan Roland's *Regenerative Enterprise* - it must do so in unsuperstitious aspect.

The prefigurative virtual: its stakes are no less real for being "vague"[15]. Establish peace, find an impersonal attention, die a little, and watch the room awaken around you. Deep roots sprouting. This is intersubjective power. How to formalize it?

Open Protocols & Peaceful Money

The Open Protocol Research Group and Ethereal Forest have, across our work and investigations, hinted at a generalized autonomism (independence from structures of legitimate violence) and toward legitimacy by other means. In the case of crypto, this takes the form of thermodynamically or mathematically secured cryptographic "hardness."[16] In the analogue realm, communities of intersubjective trust (what Austin Wade Smith once called "epi-consent") fill this same role. It is the underground thesis of web3 adoption that the two could be weaved together by the protocolized structures of decentralized and emergent legitimacy - strategies that both have discovered, as a matter of prefigurative necessity. Open protocolization is the structural bridge, peaceful autonomy is the deep value that buttresses it.

What becomes clear from the investigation into the underground, the

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14 George Washington Carver.
15 "In any case, if the State always finds it necessary to repress the nomad and minor sciences, if it opposes vague essences and the operative geometry of the trait, it does so not because the content of these sciences is inexact or imperfect, or because of their magic or initiatory character, but because they imply a division of labor opposed to the norms of the State." *A Thousand Plateaus*, 369.
16 See Josh Stark, "Atoms, Institutions, Blockchains."

realm of open protocols, is that it is the very process of relating to the virtual that makes the open protocol thesis work. Recall the definition: open protocols are "social and technical protocols woven together into a compound cultural protocol of improvisational, empirical imagination."[17] This "atmosphere" of divergence and open empiricism, the enthusiasm for the intersubjective field, is what lends open protocols the viral memetic power to circulate in the underground. They are programmed with its real effects. If, as Massumi writes, "the surplus of reality that constitutes the virtual guarantees the gift of freedom granted to the actual," open protocols are empowered by the freedom of actualization.

And yet, there remains this final boss of institutionalization, virally decentralized and free floating, that aspires to enter into every relationship and divorce means and ends. "Money designates and reproduces a specific social structure," write Hardt & Negri. "Money *institutionalizes* a social relation—or, rather, a set of relations of social production and reproduction." The underground finds itself in a double bind inasmuch as the resources needed for social relations to reproduce themselves are tethered to a mechanism for divorcing means and ends. The capacities of money - the unit of account, the means of exchange, the store of value - are not institutional in and of themselves, but their particular configuration in the arbitrary and violently conditioned order of *fiat*.

In no way is this group endorsing the abolition of money, even in its current form; fiat, or something that looks like it, will continue to have important use cases, especially as an "exit value" from the geographical and contextual locales invoked below. In the outside and interstitial spaces of these locales, there is room for a non-institutional form of it. But as long as the whole index of value forms is systematically subjugated to the rule of financial capital - as long as the circulation of resources is directed toward the supernaturalist myopia of profit-in-itself - autonomist relationships will be systematically diminished and marginalized. What is needed, if we are reading the landscape correctly, is an extitutional or underground account of capital that could think both autonomy and the virtual that autonomy affords access to.

Massumi himself, along with colleague Erin Manning, took a shot at an expression of extitutional capital in their collaborations with the Economic Space Agency.[18] We encourage any reader to explore the Three

17 OPRG, "An Introduction to Open Protocols."
18 Find a profile on Massumi and Manning in Uriah Marc Todoroff, "A Cryptoeconomy

Ecologies Institute and the 3E Process Seed Bank. It's our feeling that these efforts were partially compromised by the institutional conditions of their emergence. (Consider the title of this article on SenseLab, of which 3EI is an outgrowth: "Philosophy Can Be a Living Process: Inside Senselab's Radically Interdisciplinary Graduate Research Culture.") We'll let the graduate students enjoy their Temporary Autonomous Zones within the university walls. But the highest stake projects in the "revaluation of value" are not to be found, in our opinion, in the isolation of art projects funded by university endowment funds.

To forge a new direction, we propose an encounter with the extant models of altereconomic creativity, circulating open protocols of the underground that orbit the virtual as both the memetic fuel for their reproduction and the end goal of their operations. They work at a different level of extitutional clarity, being "located" in ephemeral pop up efforts, occasional excitations of what is properly a field of pluralistic and technological improvisation. Insomuch as the Open Protocol Research Group and our extitutional affiliates remain without institutional affiliation - inasmuch as DAOs are mere excitations of an ecosystem substrate with always porous boundaries and prefigurative ends - we may have the right eyes to develop practical concepts from this clarity. And potentially, given enough patience and receptivity, to weave those concepts into the field.

Undercapital

What's ultimately at play in this research vector is the distinction between enumerating the virtual - instrumentalizing it to the end of indexed quantity - and extracting or "expressing" from it operational passages that can expand or formalize prefiguration. We must, as we say, *formalize without standardizing*.

Undercapital is the combinatorial problem space - the sum of operational passages - of the eight forms of capital and the three faculties of money when deployed toward the expansion of the virtual field. This takes the form of a literal matrix of possible combinations of these forms, but it does so in a peculiar way: because the virtual field expands under prefigurative conditions, the submersion of the various forms into themselves, even individually, produces the virtual as a positive externality (just as a swordmaker, in the transpersonal process of gaining artful

of Affect" in *The New Inquiry*.

expertise in the craft, discovers an instance of the virtual animating his steels). When realist conditions are present - peace in the absence of institutional regimes, consent, fluency in intersubjective physics - the virtual is abundant.

And if undercapital is oriented by the wealth of the virtual that accompanies it, we know which way the ship sails: This is the same wealth that gives substance and reproductive capacity to open protocols, inasmuch as they diminish the need for institutions. Encoded in their strategies of open use and propagation is an assertion of the open field of (empirical) possibility as an end in itself. To this extent, the stakes of undercapital are entangled with a structural attitude of p2p and stigmeric coordination, and protocolization as a free formalization of any would be "standard."

Still, the question remains of value flow: if open protocols are the path forward, what kind of economic games could push toward a tipping of the scale in the direction of protocolization? If extitutions (defined in previous work as outposts of open protocols that feign institutional legibility but whose behavior is only understood in an open protocol framework) are needed to expand the reach of open protocols, how can they be integrated into systems of multicapital provisioning that avoid financialization?

Experimental efforts to multiply the forms of capital that people organize themselves around have an accomplished history that we can learn from. Every city has their local coups. For our town of Portland, one of the most significant coups is the decades-old initiative the Rebuilding Center. They followed the following steps to scale to surprising influence and persistence in the urban bazaar:

1. **Develop a concept of multicapital wealth.** Practical necessity, circulated frameworks or a stroke of community inspiration leads to a concept on the community level of collaboratively produced or commonly-held wealth and a concept of community autonomy is formed.

2. **Accumulation of multicapital resources** by way of unlocking latent stores - of which, because of impoverished frameworks that ignore the holism of the eight forms, there are many. In the case of Rebuilding Center, this was simple stores of imperfect or difficult to resell housing materials including cabinets, fixtures, structural components. Once recognized, those who possess them tend to be empowered and energized by the realization of their direct autonomous access to important stores of wealth, and step 1 is emboldened.

3. **Develop a protocol of sustainable and effective resource allocation.** This involves everything from community governance (esp. when the resource being allocated is based in living capital, i.e. cultural and social) to navigating the revenue evil curve. Rebuilding Center was able to reach a "flow state" of legitimacy that allowed it to receive enough consistent volunteer labor to be sustainable.

4. **Institutional legitimacy and state subsidies.** Because of the networked nature of multicapital initiatives, siloed departments of "environmental protection" and "racial equity" often flock to aid the autonomous initiative, once it is up and running. (The second order effects are intersectional because the direct access to multicapital wealth cuts across multiple systems of exploitation.) Most important to the formula is the way in which the autonomous capacity of the initiative allows for an expansion of the Overton Window of what constitutes acceptable public action.[19]

This playbook (a common roadmap for the most extitutionally oriented non-profits) constitutes a field-tested strategy for staving off the worst elements of standardization and scaling more or less on the community's own terms and within patterns that light the way to autonomy from the instrumental reign of financial profit. Being a large, multiple city block-sized brick and mortar outfit, the rigorous correspondence to a range of regulatory and financial standards was an unavoidable need for RC. But it may be the case that undercapital initiatives can't follow this path.

It seems uncontroversial to those familiar with underground communities that undergrounds simply do not scale. This insight is usually delivered with a superstitious air or a veteran's cynicism: "nothing good in this world can last." It's important to internalize this field knowledge, but it is for us realists to reject any tendency to quietism and supernaturalism: as Massumi and Deleuze show us, the virtual is *real* if not actual. Its expression is akin to the probabilistic fields of post-Newtonian physics: we can design around these real elements so long as we consider them not as particles, quantities, objects, but as the distributed likelihood of a visitation. And we know - or rather we can learn - what increases the likelihood.

Consider the three major elements of undergrounds identified in the previous essay: The mutual assumption of high agency. A robust culture of informed and affirmative consent. A participatory and pluralistic aesthetic. In a word, the charge of the virtual, the *stuff* of the underground, depends upon con-

19 Other radical multi-capital initiatives have taken the provocation of Overton as one of their main ends. See our interview with Mark Lakeman of City Repair for a detailed recounting of one such alter-economic coup that greatly informed this work.

ditions of inter-agency, whereas the modes of consumption common to institutional spaces depend upon a learned passivity or complacency and a commercially or administratively driven taste for homogeneity. For scaling undergrounds, this makes for (at least) three specific barriers:

Institutional-behavioral bias. In the United States, we have a complex and multilayered bureaucratic regime of licensed specialization, as well as a deeply cynical culture of litigious opportunism bolstered by a professional class of legal professionals. This puts consumers and owners in what Slate Star Codex famously called a "multipolar trap," a downward spiral of paralysis before mutually interwoven elements that are, in their sum, oppressive. Participatory patterns of high agency and active rather than consumptive aesthetic creation suffocate under standards optimized - or regulatorily disciplined into - a low agency logic.

Limits to circulation of underground protocols. Similarly, large scale operations attract low agency participants, and in particular participants who are not sophisticated enough in strategies of affirmative consent and negotiated intersubjectivity to be able to attend to the needs of the atmosphere. Underground activities require cultural or placed-based specificity, what Ven calls "the contextual/geographical local" i.e. a scene or a neighborhood - in order to meaningfully develop and sustain the characteristics of a high agency public. When it sees a scene scale beyond this local specificity, the virtual flees with both feet.

Cult of personality. Perhaps the most delicate feature of undergrounds, the one that breaks the most quickly when scaling, are their headlessness. The specter of a cult of personality is wonderfully destructive in two senses: the ability of outsiders to identify a literal or figurative locus of liability, a scapegoat, which it can "coopt, kill or imprison" (in the case of artistic movements, this is almost always cooptation or self-destruction); the tendency for elements in the community to elevate a locus of energy that they can *withdraw agency* to (in this way, the cult of personality reflects in one breath the worst tendencies of problem 1 & 2).

There's a contradiction latent in the question of scaling communities of the virtual insomuch as the virtual is a facet of material contingency. Think of it as a moving image of potential manifestations produced by a given material to show, for the benefit of those who have bothered to encounter it, its singularity. For a shopping complex, an acre of land is an acre of land: the environments of communities of the virtual enjoy no such fungibility. In a passage of some of his earliest reflections on the virtual from Difference and Repetition (1968), Deleuze writes:

For the nature of the virtual is such that, for it, to be actualised is to be differenciated. Each differenciation is a local integration or a local solution which then connects with others in the overall solution or the global integration. This is how, in the case of the organic, the process of actualisation appears simultaneously as the local differenciation of parts, the global formation of an internal milieu, and the solution of a problem posed within the field of constitution of an organism. An organism is nothing if not the solution to a problem, as are each of its differenciated organs, such as the eye which solves a light 'problem'; but nothing within the organism, no organ, would be differenciated without the internal milieu endowed with a general effectivity or integrating power of regulation.

Note that the organism is not a metaphor here: this divergent actualization occurs across scales, and is as true of organisms as well as geographies, languages, cultures. The nuance between actualization and the virtual itself is admittedly a difficult one, but we can note that organisms, languages, geographies, enrich and intensify the field of real possibles: the stakes, then, of the need for the local to "connect with others" is the persistence and expansion of the material trace which creates more intensity, more dense potential. They become an organism so they can persist in difference.

Already in "sketches" we've seen the illicit underground discover, out of necessity, a strategy of open protocolization resistant to the three barriers to scaling. To preserve underground values and subvert the key mechanistic depressions of the virtual field, they scaled horizontally in a way that was culturally and technically headless. But their rebuttal to the supernaturalists comes at a cost: with each instance of horizontal scaling comes a fracturing of coherence, a *difference*: to persist, they sacrifice a body, diffusing like a mist (or hardening into cooptations, *giving up the ghost* as it were).

The strategic problem space of undercapital, of the formalizable potential systems of an overground society of the virtual, is how to take advantage of this drift, how to alchemize it from "local" degradation to global enrichment: a "*general effectivity*" or integrating power. In the case of Deleuze's body, "*no organ would be differenciated without the internal milieu endowed with a general effectivity*." Are the disparate cells capable of operation totally separate from the milieu? Only insofar as they can survive without resources (not very far). They're viable difference is contingent on their relation to the unity of the body. If undergrounds

die - or if we often offer experience undergrounds in their fleetingness, in a persistent dying - it would seem to be because they lack a concept of *general effectivity*, a notion of commonness with the autonomous and horizontally scaling "differenciations". So what would be the contours of this "general effectivity," this body?

A note on the category of art

So far much of our reflection on the underground has been reduced to the so-called "arts." It strikes us that the label "art" is a strategy for compartmentalizing and mollifying what should rightfully be a primary tension in our society, even greater than that of class. A common refrain, "She makes it into an *art form*," would seem to signal both deference and mild condescension: she goes too far, aestheticizes it too much, *she's an accountant for Christ's sake*. This signals to us that many fields are pregnant with the stilted excess of deep material engagement. Beyond logistical comprehension is material knowledge, and deep material knowledge is (again) an intersubjective and ontologically challenging ordeal.

If the arts provide countless examples of rhizomatic free association indexed against dynamic and locally contingent material conditions, they are only a prefiguration of a material inspiration that might consume all sectors. *Art is a fallacy, we all must become artists.* Or rather, the underground is ubiquitous inasmuch as many of us are all already artists, engaging with local virtuals, seeing through (or more accurately, seeing *with*) the garden or the refurbished bookshelf - whatever we have cared to deeply know in its own expression - to the multiplicity it contains.

Actualizing Undercapital

The question of undercapital, the mobilization of the eight forms of capital and the three faculties of money to the expansion of the virtual field, is also the question of constructing a body from these pluralistic and multiscale social forms through which nutritive resources can be circulated: what Spinoza calls "a common notion."

As we have noted, some could argue that the virtual, by virtue of its immeasurability, is resistant to design, planning or global conceptualization. It seems to be the general opinion of the zeitgeist, for the moment. As materialists, we can't help call this out as fallacy: we are merely entering the era where relational fields must be privileged over objects/particles,

where a new type of planning needs to be conceptualized in reference to a probabilistic rather than quantitative index. Fields are real, they are just of a different order of causality. Undercapital asks: *How can we develop economic games that relate to intersubjective fields?*

For a first target, the lowest hanging fruit is open protocolization itself. Undercapital enthusiasts can fund pop-up think tanks that work to solve, in a given context (any given context, at any scale), problems like the following:

How can a protocol be employed to intensive ends? Consider the work done to adapt LSD from a DoD mind control initiative to a tool for exploring the virtual field ("Turn on, Tune in, Drop out"). We have discussed at length how certain technologies of reuse and repair or small scale food production have been honed in the direction of autonomy from centralized systems. What manner of creative divergence comes from those who go to their garden rather than the CVS, who depend on their knowledge in a craft over their appetite for consumerism to fix a problem of sustenance? Like the free parties discussed in the previous essay, in some cases the journey might be greater than the destination. The labor intensive nature of autonomous action generates the positive externality of deep material engagement, just as deep material engagement often generates the positive externality of autonomy. Other practices at the level of the individual and below might be encoded that could add further positive externalities, ones which the individuals themselves could benefit from. The virtual takes care of its own.

How can protocols stack to maximize each other's capacities? The multiscale character of the virtual is a rich design vector: open protocols for seeding ubiquitous local gardens, results themselves of a caring tran- spersonal ordeal, could scale the viability of autonomous pharmaceutical experiments that lead to new horizons of non-normal states. A renaissance of garage manufacturing and hardware hacking could develop into regional or even neighborhood aesthetic vernaculars, communities erupting in swells of participatory agency over their environment. As in the case of the multi-cap- ital initiatives mentioned earlier, formalized strategies for encountering the virtual generate second order effects that are intersectional and networked, diminish institutions and encourage material curiosity, open empiricism, intersubjective games. Cognizance of the virtual is the subliminal means by which a general autonomism could go viral.

What are the contours of Minimal Viable Evasion? The regulatory

authority of the state acts on always shifting ground, push and pull regimes of varying emphasis and favor. Undergrounds, especially urban undergrounds are well aware of the many areas where non-enforcement is a de facto policy. Despite stereotypes, it would appear to us that law enforcement in underfunded urban locales are often willing to ignore a peaceful good time so long as the participants have done due diligence with neighbors and other local stakeholders. The problem comes when large scale commercial or public interests are significantly threatened, especially when it comes to legal liability. Kyle Smith at LexDAO has invoked "inverted precedent," potential legal engineering tactics for establishing autonomous contracts that would be recognized by the state. How can these be combined with known underground tactics for staying under the radar of enforcement to generate passable strategies for the kind of participatory and experimental gatherings needed for group encounters with the virtual?

Ephemeral open protocol DAOs might pop up for six weeks or six months to accomplish deep research in the extant tactics and the new technological strategies available, contribute it to the strategic lexicon (an open protocol library like the one being established at Open Civics), and dissolve. Members of our community are already working on forking Protocol Guild's self-curated registry in order to establish vehicles for flowing resources to researchers who prioritize protocolization as a means of supporting and maintaining the extitutional clarity of the underground.

Token Engineering

Inasmuch as communities that are oriented toward the virtual field take the shape of this fragmented milieu, the clearest path for formalizing value flows in their direction is to establish network effects by way of an economic grammar for common cause. Can reputation tokens be deployed to solve scaling problem number two, the circulation of protocols and etiquette for high agency participation? Individuals could establish peer legitimacy in one scene and use it as entry to another - no need for one standard, they could be pluralistic - but in our view the dynamics of surveillance and implications of "social credit score" would do more harm to the prospect of intersubjective ordeals than it would benefit the scaling problem.

Community reputation tokens would invert the logic - they could be used to solicit resources, encouraging high agency participants to engage new scenes while leaving it to the scenes themselves to maintain a vertical limit to scaling (an important engine of horizontal differenciation) corre-

sponding to the physics of underground etiquette or 'epi-consent.' These may, however, be contradictory inputs: the key strategy we've observed for preserving epi-consent is to remain opaque to the general public. The design game amounts to a rivalrous balance between social capital and virtual capital, the hazards of public legibility to the maintenance of the vibe.

The desired path would seem to require a negotiation between the two: some level of minimum viable reputation token to allow trusted participants to signal that a locale meets a given rubric of the underground - most of all robust consent protocols and institutional disaffiliation - mixed with a zero knowledge architecture for dispersing funds to a burner address for a scene without requiring public visibility of that scene. Guerilla funders could send fleets of high trust auditors into the global underground to jumpstart resource flows, signaling across months to generate a registry in which *something* cool is happening, who knows what? (This would require fairly elaborate legal engineering maneuvers that we think are nonetheless viable.) A side effect of this scene-anonymous resource share is a collective underconsciousness, a knowledge that a tide is rising, and access to resources are no longer contingent on institutional legibility.

Still, these designs are trapped within a logic of *financial capital allocation* between *discrete entities*. Undercapital design gets much more savage when tracing multicapital and multifunctional allocation techniques across horizontally expanding threads of the underground, defined not in terms of discrete entities - not even primarily extitutions - but protocols and fields. When material labor becomes de-institutionalized, tinged with affect and virtual life, are its products scarce in the same way? Cultural, experiential and intellectual capital, the key substances of (socio-) technical open protocols, may have the power to render the other forms abundant in a way that deemphasizes traditional economic scarcity. What then?

It's hard to say what is science fiction and what is a direct material path forward - that is the work of an undercapital analysis that could take years to unfold. Yet open protocolization and the viral adoption of virtually grounded autonomous labor could unfold into a runaway complementarity at any time. Our engineering efforts should occupy that gap. What can dynamic issuance, bonding curves, self-curated registries and on-chain mutual credit mean for a first breath of an inverted city or cul-

tural economy? As supermodular network effects outside of institutions grow into a common wealth, is some economic activity supplanted by a highly engaged tokenized commons governance that mirrors the polycentric and ever-forking structure of the open protocols?

A memetic frame for a 'general effectivity' of the virtual

Many cultures have a festival of the liminal - All Hallows Eve, Fet Gede, Día de los muertos, Gaelic Samhain, Walpurgis Night, the Hungry Ghost festival, days where the boundary between earth and the underworld is thin. They are at once utterly populist, but charged with gothic indulgences - spectors of "inorganic life", atmospheric disorientation, a sense of coextensive realities - auric joys within a kind of folk mysticism of the earth. The literary critic Mikhail Bakhtin writes of the carnivalesque aura commonly associated with the folk underworld, as opposed to the solemn and guilt-ridden portrayals of institutional regimes. We'll quote him at length, from his *Problems of Dosteovsky's Poetics*: What constitutes the carnivalesque?

Carnival is a pageant without footlights and without a division into performers and spectators. In carnival everyone is an active participant, everyone communes in the carnival act. Carnival is not contemplated and, strictly speaking, not even performed; its participants live in it, they live by its laws as long as those laws are in effect; that is, they live a carnivalistic life. Because carnivalistic life is life drawn out of its usual rut, it is to some extent "life turned inside out," "the reverse side of the world" ("monde al'envers").
The laws, prohibitions, and restrictions that determine the structure and order of ordinary, that is noncarnival, life are suspended during carnival: what is suspended first of all is hierarchical structure and all the forms of terror, reverence, piety, and etiquette connected with it ….
Carnival is the place for working out, in a concretely sensuous, half-real and half-play-acted form, a new mode of interrelationship between individuals, counterposed to the all-powerful socio-hierarchical relationships of noncarnival life. The behavior, gesture, and discourse of a person are freed from the authority of all hierarchical positions (social estate, rank, age, property) defining them totally in noncarnival life, and thus from the vantage point of noncarnival life become eccentric and inappropriate. Eccentricity is a special category of the carnival sense of the world, organically connected with the category of familiar contact; it permits - in concretely sensuous form - the latent sides of human nature to reveal and express themselves.

Linked with familiarization is a third category of the carnival sense of the world: carnivalistic mésalliances. A free and familiar attitude spreads over everything: over all values, thoughts, phenomena, and things. All things that were once self-enclosed, disunified, distanced from one another by a non-carnivalistic hierarchical worldview are drawn into carnivalistic contacts and combinations. Carnival brings together, unifies, weds, and combines the sacred with the profane, the lofty with the low, the great with the insignificant, the wise with the stupid.

Connected with this is yet a fourth carnivalistic category, profanation: carnivalistic blasphemies, a whole system of carnivalistic debasings and bringings down to earth, carnivalistic obscenities linked with the reproductive power of the earth and the body, carnivalistic parodies on sacred texts and sayings, etc.
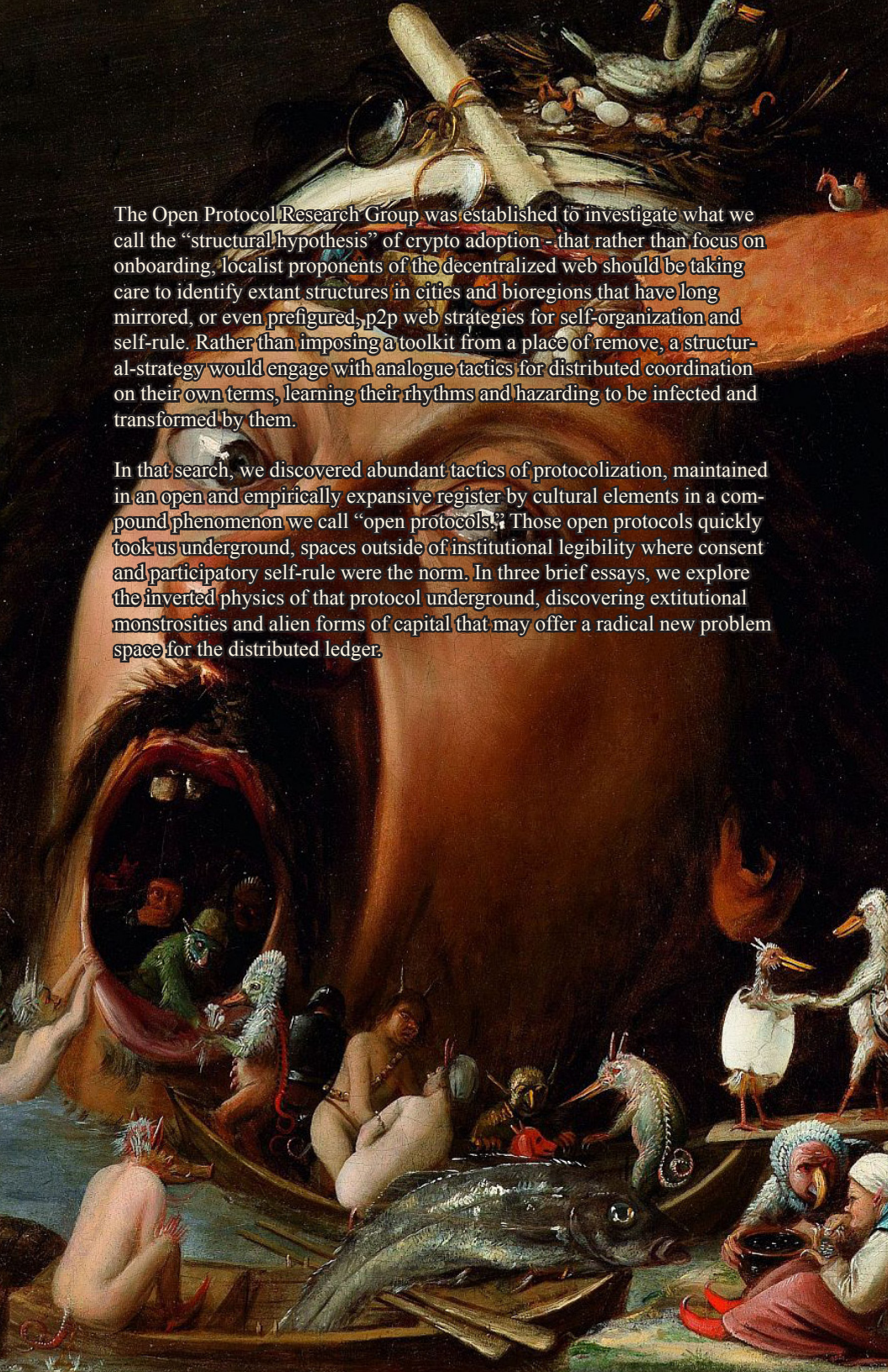
Later:

Carnival is past millennia's way of sensing the world as one great communal performance. This sense of the world, liberating one from fear, bringing the world maximally close to a person and bringing one person maximally close to another (everything is drawn into the zone of free familiar contact), with its joy at change and its joyful relativity, is opposed to that one-sided and gloomy official seriousness which is dogmatic and hostile to evolution and change, which seeks to absolutize a given condition of existence or a given social order.

As we have seen, the undergrounds have far advanced from the folk wisdom of the crowd, adopting a design consciousness of the underworld proper not to a common, insecure tourist but a seasoned traveler. And yet the cultural knowledge of the power inherent in the virtual and the implications of contacting it is here in these age old features of the carnivalesque. They are a deep psychic heritage.

Crypto has always carried with it a strange inversion, even paranoia: the integrity and immutability of the blockchain calls into question the integrity of all else, making the world a cauldron of potential relativity, propaganda, statecraft. The culture at large is at an extreme saturation of distrust for institutions, making for a living global carnival of AI infections, UFOs, snake oil salesmen of all types: the unipolar integrity of the post-Cold War period has fragmented into a million pieces. To the perspectival disorientation of the carnivalesque, the public is well-initiated. Now they need to find orientation in that new cosmology.

We have long considered solidity devs, musicians, party alchemists,

woodworkers, guerilla chemists, etc. to be kindred spirits in their dedication to "the craft." The layer of psychonautic inquiry added to all of these material enterprises when one considers the *virtual field* that flanks them gives the term "craft" a different sense entirely. A concept of the wisdom of astrology, tarot and witchcraft has passed over into the mainstream and is on the tip of everyone's tongue.The folk underworld revival in our culture - significant since at least the seventies, but resurgent in the post-covid era - points to a desire for agency in the virtual field. What would it mean to extitutionalize this impulse, bring it over the material threshold, to circulate the notion that the spirits have always spoken most to experimentalists, makers and pirate empiricists who derive their mysticism not from the stars but from grounded expertise in the stone and the loom?

If crypto has a major cultural export, it's the conviction we find in our international community that, by peaceful means, with tools won by careful attention and the seeking out of patterns of hardness in our ephemeral world, we can collectively design reality. What are the infrared colors and agencies of that coming real? Could the institutions even withstand a hypernaturalism, a mass awakening to an age of intensive or gothic materialism, where the only thing standing between us and a legion of alien agencies is our own autonomous labor?

The Open Protocol Research Group was established to investigate what we call the "structural hypothesis" of crypto adoption - that rather than focus on onboarding, localist proponents of the decentralized web should be taking care to identify extant structures in cities and bioregions that have long mirrored, or even prefigured, p2p web strategies for self-organization and self-rule. Rather than imposing a toolkit from a place of remove, a structural-strategy would engage with analogue tactics for distributed coordination on their own terms, learning their rhythms and hazarding to be infected and transformed by them.

In that search, we discovered abundant tactics of protocolization, maintained in an open and empirically expansive register by cultural elements in a compound phenomenon we call "open protocols." Those open protocols quickly took us underground, spaces outside of institutional legibility where consent and participatory self-rule were the norm. In three brief essays, we explore the inverted physics of that protocol underground, discovering extitutional monstrosities and alien forms of capital that may offer a radical new problem space for the distributed ledger.