

# TOWARDS A COSMOLOGY FOR RURAL COMPUTING

**Federico Poni**

**Thesis submitted to:**

→ the Department of Experimental Publishing; Piet Zwart  
Institute, Willem de Koonig Academy

→ in partial fulfilment of the requirements for the final  
examination for the degree of: Master of Arts in Fine Art &  
Design: **Experimental Publishing**.

→ **Adviser:** Marloes de Valk

→ **Second Reader:** Steve Rushton

→ **Word Count:** {8059}



# A Glossary

- ⇒ Ecosystem
- ⇒ Technic
- ⇒ Seriality
- ⇒ Magic
- ⇒ Ineffable
- ⇒ Tools
- ⇒ Community
- ⇒ Repair Culture
- ⇒ Rurality
- ⇒ Low Tech
- ⇒ Mythology
- ⇒ Conviviality
- ⇒ Rituality
- ⇒ Telecommunication
- ⇒ Telepathy
- ⇒ World Building
- ⇒ Computation

The horizontal line pushes us toward the  
matter,  
the vertical one towards the spirit.

Franco Battiato - *Inneres Auge*<sup>1</sup>

# Index

3 *A Glossary*

5 *Index*

6 *A Statement*

## **7 Introduction**

⇒ 7 *Habitat*

⇒ 8 *Community Building and its Infrastructure*

## **14 First Part: Structures**

⇒ 14 *Nightmares*

⇒ 17 *Mythopoiesis*

⇒ 19 *Cosmogonies*

## **24 First Interlude: Aether**

## **27 Second Part: Rural Computing**

⇒ 27 *Catastrophic Desires*

⇒ 30 *Connegting People*

⇒ 31 *Ultra-Territoriality*

⇒ 32 *Computare*

## **34 Second Interlude: Fire**

⇒ 36 *Wizards*

⇒ 37 *Gods, Tools and Conflicts*

## **41 Third Part: Archetypes**

⇒ 41 *Hotspots and Menhirs*

⇒ 46 *Protocols and Angels*

⇒ 49 *Handshakes and Miracles*

## **50 Conclusions**

53 *References*

57 *Aknowledgments*

58 *Colophon*

## A Statement

The urgency that brought me to write about the topic I will present in the next pages is driven by the necessity to understand how and then develop relations, media and relational tools for communities. I will take as case study a rural community/residency project set in the center of Italy, named Habitat, where the concepts and the projects I will present in this text have been cradled.

The thesis proposes a morphogenic transmutation on dealing with communities, taking into consideration an hypothetical near catastrophic future where it is possible to imagine a different way of living. In order to transform the way we deal with our communal reality, the linguistic and spiritual values and technological assets have to be put into discussion. What I propose is a set of elements that attempts to define a possible new way, a new framework to deal with technology and computation not driven by an absolute instrumentalization and serialization of tools:

o Rural Computing.

I propose to embrace a reading and development of technology for communities with a more magical frame, meaning that goals and approaches are very different – in a ritualistic, convivial and narrative way.

The thesis is composed by a general introduction focused on Habitat, after that it will then follow three parts that respectively talk about:

1. The issues of the current attitude in technological development.
2. The elements that constitute Rural Computing.
3. How telecommunication is driven by old and contemporary myths.

There are two interludes about two particular elements - the Aether and the Fire – meant to give a more mythological reading.

# Introduction

## Habitat

This research started spontaneously the last summer during a residency at Habitat<sup>2</sup>, a collective workshop and re-activation residency of rural areas in Italy. The project has been launched by fellow XPUB student Jacopo Lega in collaboration with Ilaria Marzolla, Enrico Tarò and Lorenzo Travaglini, respectively in the imaginative roles of President, Vice/Great Treasurer of Court, Great Councillor of the Multitude and Minister of Radio, Minister of the Arts. They started together to design the residency project in the first half of 2021. Now Habitat got some *residents* and some *permanents*, which is the pendulum that is at the core of it.

The residency, currently, is placed at the top of a hill in Appennino Tosco-Romagnolo named Ca' de Monti, and it is close to the village Tredezio. A set of quite abandoned vernacular buildings lives in the stage of the area; the after-WWII exodus from rurality to cities marked entire Italy, allowing our Country to enter global politics.

I was supposed to stay in Habitat for a week, and it happened. I went to my swampy hometown but after a few days, I was back in the residency for a few weeks, escaping the flat land. I was born in a middle-size city, Pavia, and grew up in its suburb, then I moved to "The City", Milan, for studies, and then here I am in Rotterdam writing the thesis for my MA.

Experiencing rurality, or better, inhabiting rurality for the first time in total commitment, triggered in me a complete shift of values and vision for the future(s). What I could experience in that timeframe was another way of living, another way to deal with and dwell on the whole ecosystem.

The bricks of the cottages, the different trees with all the different greens, the human *Habitantens*, the little scorpions, the lack of mobile connectivity, the wifi in

only a single room, the smells from the wood, the big rock at the very top of the hill, the antenna next to it... the ecosystem has to be embraced in its whole totality.

The Habitat ecosystem has different assets in comparison to where I lived until now. I would call the bubble of behaviours that happens when the shape of the ecosystem change "urbanism".

Etymologically speaking, "urbanism" comes from Latin "urbe", city, and it refers to the relationship between citizens and the spaces: I think we can extend this way of interpreting and dwelling spaces to other less-architectural related topics.

For instance, what I found extremely fascinating is the lack of connectivity in Ca' de Monti. We (as Habitat) call them "shadow areas", areas that have got limits.

This allows us to experience different digital urbanism, you can't *infinite scroll* anywhere around Habitat. We do not have cable internet. Our bridge to the Internet is an antenna, a long WiFi service that sends to and receives from us data packages.

Again, the internet is only in a room, and it creates a different way of experiencing the situation and internet itself.

We want to embrace limits instead of trying to suppress them, we don't want to have fiber-cabled internet or filling the whole cottages with a repeater. It's a necessity that we want to embrace not only as a necessity but also as a leitmotiv for building up our beliefs.

## Community Building and its Infrastructure

Since Habitat was born as a re-activation experiment, there is an inner community-building desire around it. What this text is going to deal with is the relationship between a community and its infrastructural technology. There won't be any fixed answer, and by using a metaphor, I want to think of this as a dream inside a nightmare, where the dream is our attempt to imagine another way to live and to



inhabit technology and the nightmare is our fixed globalized life.

In Habitat I have been baptized as Minister of Infrastructure, my role is based on the development of new tools: this is my urgency, which mixes concerns about the kind of tools that are possible to develop to dwell and narrate the experience of reactivation: this is the first layer, the other layers are the implications on how they are conceived.

Habitat got a server from XPUB, which means we self-host our website, a wiki, media archive, radio archive, a Mastodon instance and other little experiments such as a homebrewed javascript Tombola.

The Tombola is a traditional Italian winter-holidays lottery game - somewhat similar to Bingo - where usually you play with money, but the last year (2021->22) we put as prize our publications, pictures, drawings, zines..



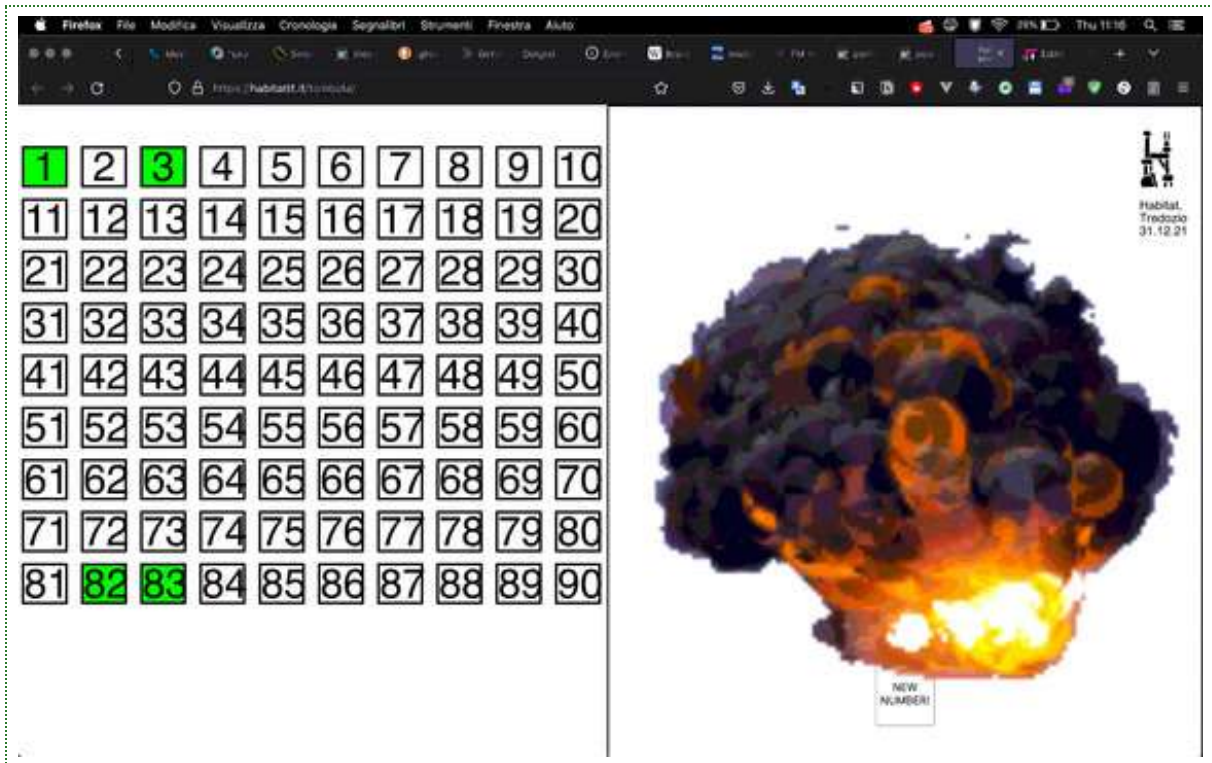
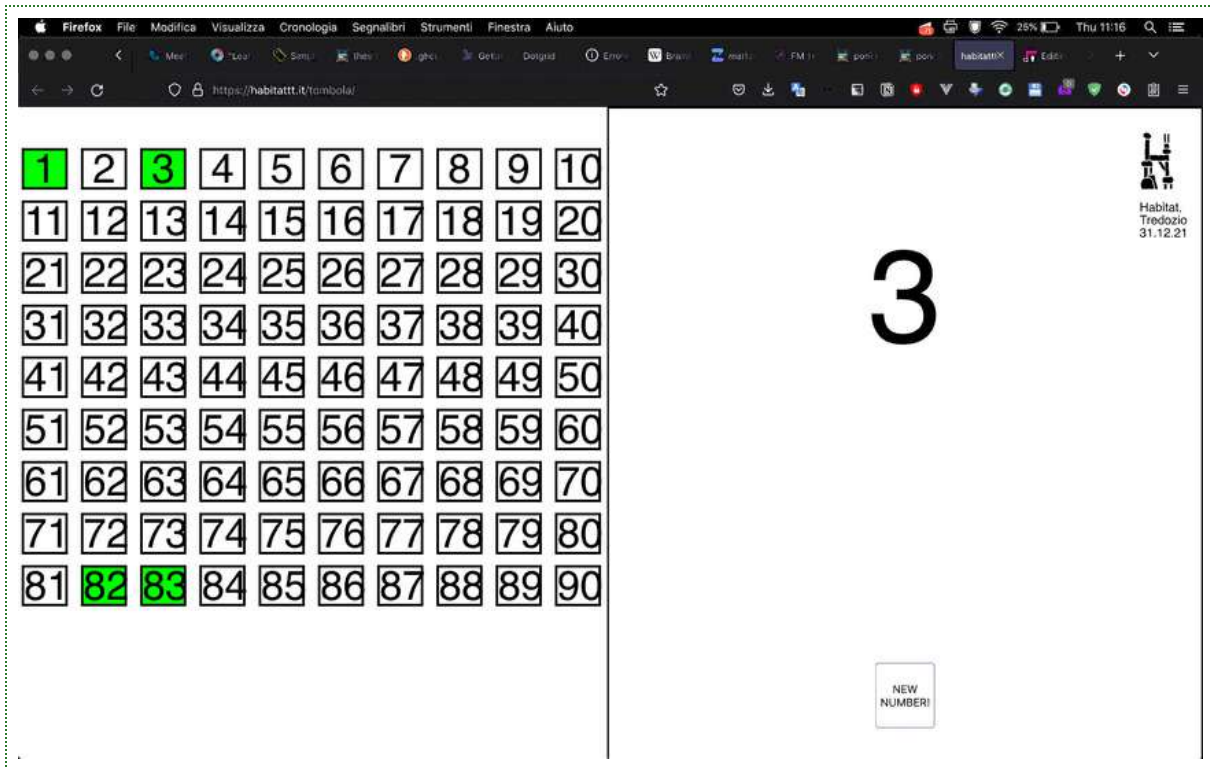
*While playing Tombola, NYE 2022, photo by myself*

This is driven by a desire for conviviality, and since we didn't have an *industrial* Tombola, Jacopo designed the cartels and I coded the number picker. The picker lived in our server, and we used it from my laptop through the local network.<sup>3</sup>

10



The cartels made by Jacopo



Our infrastructures are based on a series of ecological choices, such as embracing a low tech approach<sup>4</sup>. and a raw aesthetic<sup>5</sup>.

The media archive is built with a PHP script and the preview of pictures, are served by assets heavily compressed via dither<sup>6</sup>, through ImageMagick.

The attempt to not "waste bytes" defines also an aesthetic.

The reasons for these choices are defined by a need for accessibility and empowerment. Not knowing how our digital extensions work makes the relationship with these technologies very poor.

Building our digital realm with fanciless and effortless tools gives a chance to a deeper understanding of it by the user, which consequently gets and gives more value on the network experience.

12



*A screenshot of our Archive*

We want to avoid Alphabet, Meta, Amazon and any other big tech nightmares. Surely we have to deal with them, but the focus is on the development of tools without the standardized dynamics of the current hegemonic system.



# First Part: Structures

## Nightmares

A framework here is intended as a social infrastructure that shapes thoughts, ideas, desires, development of stuff, and beliefs. Usually, this Marxist term is used on a global scale, whatever happens in the stage of the whole reality<sup>7</sup>.

In this text, I'm referring to a microcosm, a community in a rural place, and I'm proposing a framework for community-building through technology. But I think it is necessary to have an overview of the elements of the current global framework: if a cosmology is the set of elements that composes orders of reality, a cosmogony is the performative-building act of it.

The philosopher Federico Campagna sustains that the current framework is totally driven by a *Technic cosmogony*. With this association, he wants to underline the violent predominance of **seriality** and capitalization of essentially everything: some call it neo-liberalism, others just capitalistic hegemony. It's the triumph of alienation and post-Fordism, where the boundaries between life and labor don't exist anymore.



What does seriality mean?

I think everyone gets its meaning of seriality, you can imagine this with sounds, visuals, but probably with any sense: the repetition *ad infinitum* of anything.

The hegemonic sense of seriality in technic's cosmogony can be understood as a method to take anything and put it in the big machine of production, at the service of capital expansion. Looping continuous actions.

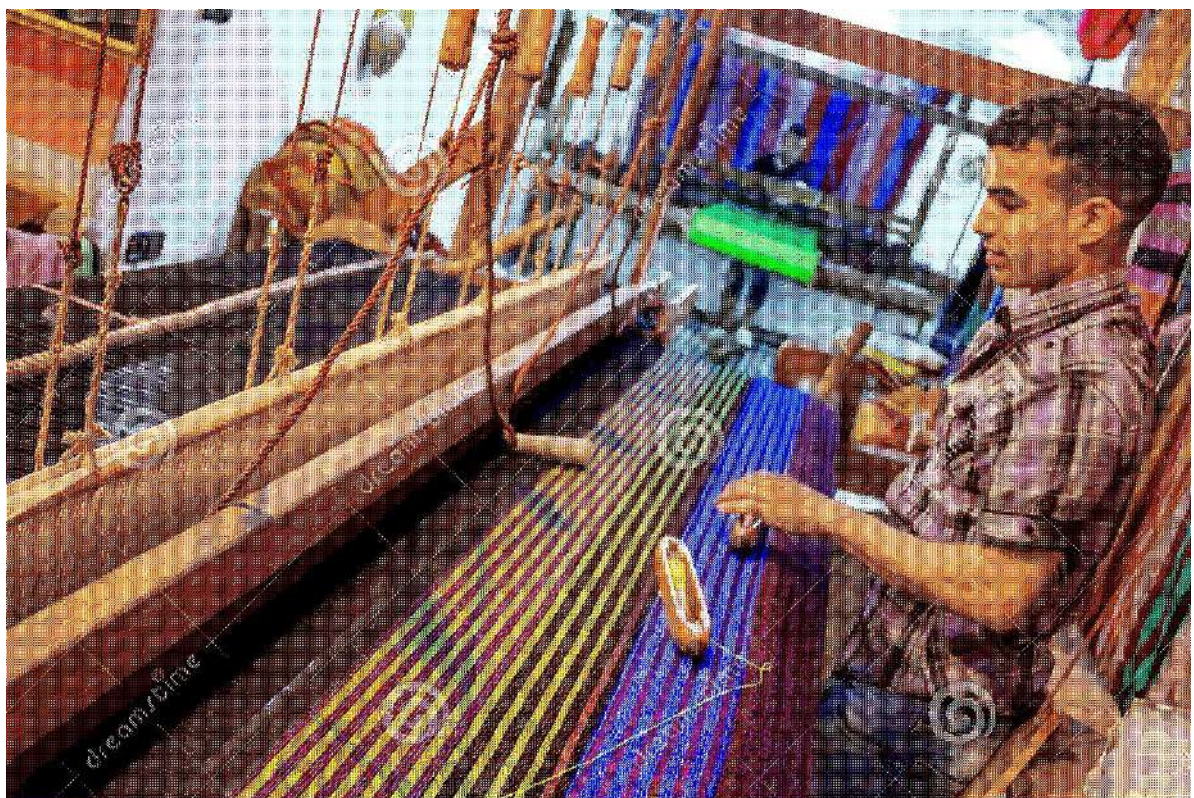
We can imagine this sick and perpetual process as a spiral frame: when something is put into serial production, all

its material and immaterial implicates are stuck in the spiral.

It's about an accumulated instrumental value of everything and this also can be understood as the *essence* of capitalism.

Campagna describes reality as “a weave made of essence and existence, like warp and weft, and the event of its undoing requires a weaver that is capable of interlacing the two back together, regardless of the specific forms and colours that each of them can take”<sup>8</sup>.

A microcosm could be read in this way, actually we can extend this concept the development of anything.



Download from  
**Dreamstime.com**  
This is a placeholder image. Change the file name to the actual image name.

121146207

6x6@ang. Cav | Dreamstime.com

*The essence of the internet realm, according to DuckDuckGo*

Growing up in this reality driven by the *Technic cosmogony* makes it extremely difficult to reach another vision of how to invent, deal with, and develop stuff and thoughts from outside this dynamic.



I propose to change this dynamic by engaging with the notion of mythopoiesis.

## Mythopoiesis

Mythopoiesis is related to myth making, something that Habitat embraces as a basis for building its community. Similarly, I embrace while talking about technology in this text; this can be understood as a collective discipline that has its roots in the attempt to explain the ineffable, or indeed what you can't express through language.

I think the collective creation of mythologies can be an important way to do community-building: framing technological experiences in a malleable set of rituals brings the people of the community closer to each other and other entities, potentially binding themselves in ephemeral traditions that constantly change, and as a result new narratives.

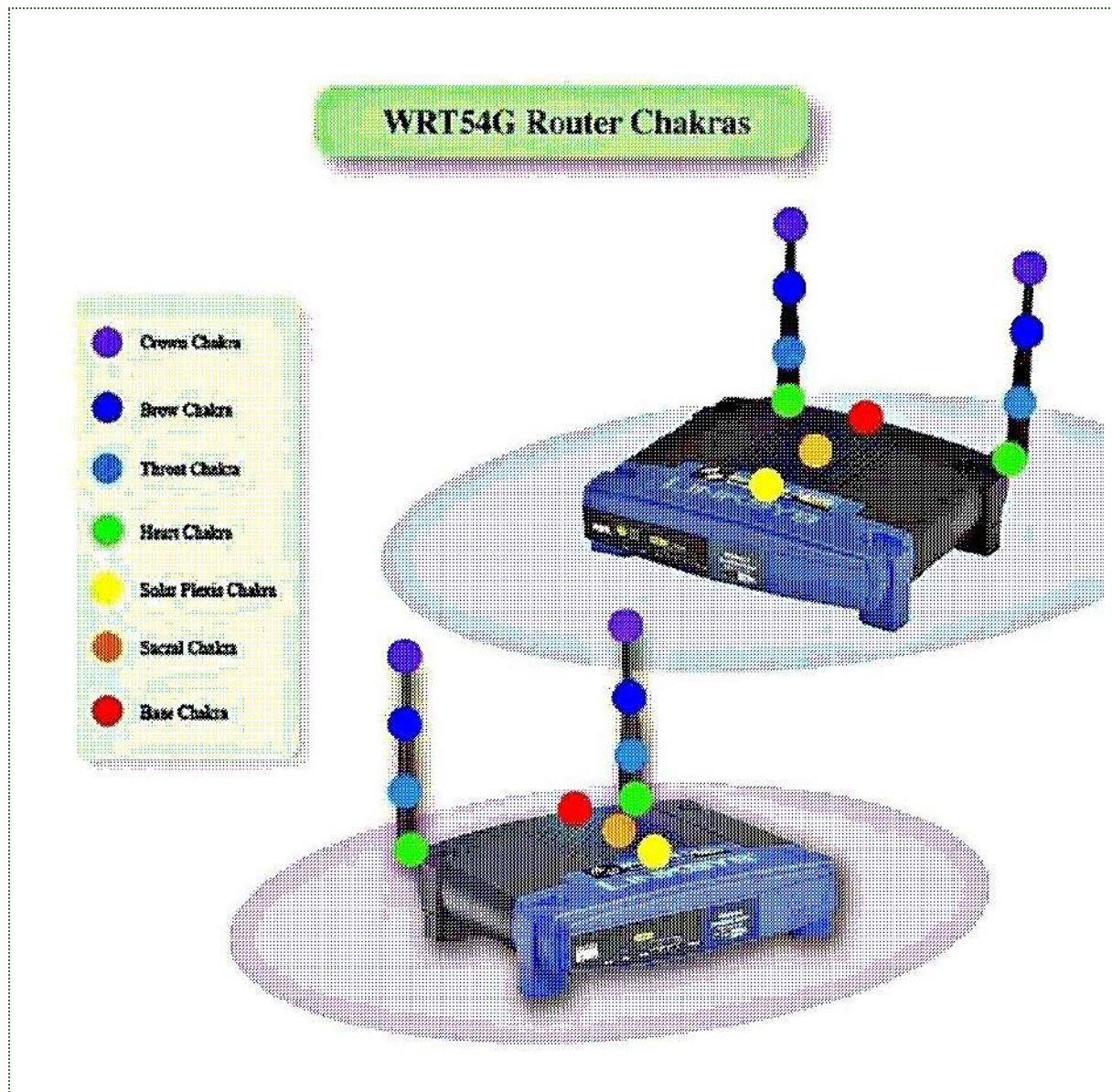
The desire to develop new tools for the community embraces limits. Instead of cheering for an eternal growth, it is the ecological concern that positions our practice between low-tech approaches and re-usability. This would attach metaphysical values to the inorganic mates we live with, instead of a mere utilitarian understanding of their existence.

I propose to call this development of technology *Rural Computing*: a way to deal with computation that embraces rurality and the reasons mentioned above. This is not a form of retro mania or rustic fetishism, it's a necessity and a duty and a burden.

Our main goal is not to change the entire world, but it is to build our own world, and this world embraces the whole ecosystem.

To outline the elements of a Rural Computing cosmology I will take as a case study telecommunication, trying to outline archetypes of it, understanding their origin in history, trying to get their *essence*, without the burden of time linearity<sup>9</sup> it becomes possible to imagine a new path

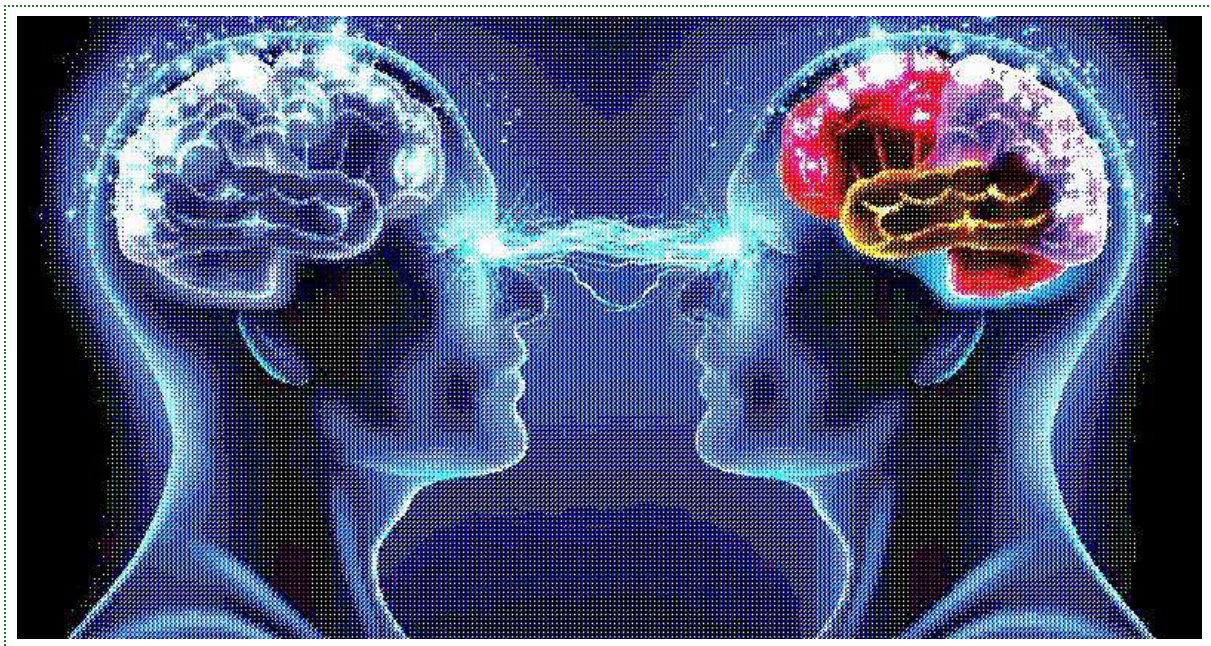
forward to develop technologies. It becomes possible to imagine a new *existence* of them.



The choice to focus and analyze telecommunication comes from the necessity that habitat faces. I think that those tools are covered, in my perception of them, with a kind of magic, full of dramaturgic cues. The way I propose the case studies will not be based on the mere use of some gadgets but mythological resonations and relations: let's think of our world as a stage and telecommunication as part of the set design, as a kind of hidden but fully visible landscape: This stage affects the characters, their beliefs and their approach to the world.

For a human deficit, the impossibility to watch the exchange of data through wireless generates an almost imputable aura of mystery. These tools can affect physical reality at a distance, and the link to a desire for **telepathy** is strong: using our devices as an extension of our body, this desire is fully committed.

Telepathy is a mystery. Any attempt to research/explain it in an absolute scientific way always failed. Accepting mystery as a subjective dilemma and not as something to discover with absolutism would be a personal dogma, that I would apply to the research of Habitat mythopoiesis. A magical approach gathers people together in a particular emotional way, roles are spontaneously created, there is a tension that is not necessary to describe.



*According to DuckDuckGo, this is telepathy*

## Cosmogonies

As proposed in the previous chapter, the current hegemonic framework driven by seriality and instrumentalization, could be summarized as "Technic cosmogony". The existence of technology is admitted by its direct heritage to technic, and since essence and existence are inextricably bound to each other, we have to dig deep into a set of mythical observations to propose another *existence*.

I do not have anything against technic itself: the practical, often manual, side of making or dealing with stuff. For example, if we want to print a book, is not only necessary the flow of words of the author. But, it's also necessary to deal with the paper, the ink, printing, and binding machines.

This is the practical side, indeed.

What Campagna represents by naming the current cosmogony "Technic" is the fact that its core engine is based on an absolute language that induces to make, think, dream in a monolithic way.

Thanks to it we can see that all the social systems (political, economic, religious...) compete against each other for global supremacy, especially through the expansion of their technological apparatus. Here the sole imperative is to win, to expand, to get a hegemonic status: this is their only shared goal<sup>10</sup>.

20

An absolute instrumentality: everything is merely a means to an end, an end that points to the limitless expansion of the ability of production.

Now, if we think of any common contemporary technology we can easily find this pattern of absolute instrumentality. It doesn't provoke concerns, it's just incarnated in our way of living.

The pervasiveness of contemporary telecommunications is *just* generated from this attitude given by this cosmogony - and I'm aware it's extremely difficult to imagine another way to deal with those tools. The frame in which we live, we study, we have fun, we cry, we (have to) compete, etc... is all about instrumentality.

But since we can be Magicians we can *try* to unstitch the given existence of the tools in analysis and their essence, trying to avoid the Technic nightmare.

I propose to understand Magic as a discipline where the mythological and esoteric narratives have extreme importance, a framework that is not based on an absolute

language and that doesn't attempt to define an absolute Truth.

Its main axiom is the ineffable, a word to express that something can't be expressed by descriptive language. It's an escape function against any attempts to put a concept into *work*.

It can be thought of as opposed to absolute instrumentality. The symbol is not the object, the essence is not the existence itself: words have a limit!

But in front of this insurmountable limit, we meet this elegant word, ineffable.

What can you say about the experience of the magnificent moment at the top of a mountain with a fresh light wind that caresses your face? Or when you are in the middle of a desert and you admire the inorganic side of the whole existence? Or the double nature of a flag that announces both borders and a freedom sensation? Or the sensation of the process of discovering anything?

You can study those moments with neurology, but then we are again talking from the indelicate Technic cosmogony. On the contrary, magic refuses to put concepts and ideas into work.

Magic deals with immaterial quests without the arrogance of attempting to objectify the whole reality. This can be extended in the development of technologies: the absolute language crashes here, if we want to imagine more than one *logos*<sup>11</sup> of technic (technology), we can.

The point is not to fall into the absolute dynamics but also in the mythopoetic act of community-building.

```
function magic() {
  absolute_language.collapse()
  languages.forEach(language => {
    language.multitudify()
  })
  alert("cheers planet")
}
const Reality = *
Reality.magic()
```

*This is exactly what we should avoid in terms of representation, but is funny*



## First Interlude: Aether

The technological realm is an artificial one, modeled by humans for millennia. But there were myths, stories and research about that. I propose now a vision of telecommunication through the meaning of aether.

If you start to pay attention to the urban and especially non-urban landscapes, you will start to notice the number of antennas that are out there for our necessity to always have an internet connection on our smartphones, smart cars, smart fridges, smart coffee machines, smart etc.. The constant presence of GPS signals implies that there are always direct connections with satellites. Every WiFi access point nearby is a microcosm: until your device can reach that WiFi connection, potentially you can inhabit that radio spectrum. The young IoT technology uses protocols and tools that use frequencies that cover cities – the well-known smart cities. At any market, store, train station and inside public transport we can find RFID readers where we can easily pay with contactless technology, not really pervasive in the spectrum of waves but very pervasive in tracking movements. Let's not forget the radio waves of the radio media: they float constantly as well, in any part of the globe<sup>12</sup>.

In three words: wireless is pervasive.

This pervasiveness is not obvious, you can't *watch*<sup>13</sup> the immense traffic of data I mentioned above. It's a naive mystery, a technological mystery driven by radio waves that float around us constantly.

But radio waves are not the only things that float constantly around us. In the past, a big question of concern in different disciplines, such as philosophy, physic, metaphysics, chemistry, was wondering where other waves would constantly travel in our space.

This long attempt to theorize a possible highway for waves has been called aether, and the wireless media mentioned



above are just a few examples of its contemporary instantiation.

The aether is "the material that fills the region of the universe beyond the terrestrial sphere"<sup>14</sup>, and is lighter than air and is located above it, whereas air is lighter than water, and water is lighter than earth<sup>15</sup>. The aether is the alchemical quintessence, a possible road to connect to the divine.

We can easily find a common denominator for the concept of aether and for the tools I mentioned above:  
*telecommunication*.

The etymology of aether means "pure, fresh air", and it's in the word "'fresh"' where this little journey starts. Michel Serres, in his book "Angels, a modern Myth", writes "When a sailor says that there's a fresh wind blowing, he is [...] using a word that relates to fractions, fractures and the adjective "fragile": thus fresh doesn't mean cold, but broken down into increasingly minute fragments or particles"<sup>16</sup>.

I'm pretty sure that whoever reads this passage can try to imagine the essence of this poetic scene, and thanks to our imagination we can almost feel a pointy breeze on the skin of our face.

A breeze, etymologically coming from french "briser", to break: "As the breeze is broken up, it divides into smaller particles. [...] as we see from the surface of the sea, each wave is edged with a multiplicity of smaller waves."

The ancient intuition of the world as a perpetual fight of waves has always been present. Now we are almost sure that our first reason of life, the sun, so the light, has a double nature, in which one is understood as a wave. But this is not a scientific text, therefore, the objective truth doesn't need to be contemplated. The Sun, our star, our non-artificial media, gives us life but also gives us the possibility to see. In that sense, it's already a means of communication.



## Second Part: Rural Computing

Axioms of Rural Computing (RC):

- Catastrophic
- Open/Free
- Low tech
- Lot of Logos
- Ultra-Territorial
- Queer
- Rubbish
- Limited
- Not fixed (depends on the community)
- Computation is not only about digital computer

### Catastrophic Desires

To be able to overcome one's slavery towards someone or something or oneself, or to overcome slavery in general, whether, in a concrete or figurative sense, it is not enough to appeal to indefinable entities such as justice or exchange currencies such as the rights because the only result would be to pass under the control of a different slaveholder.

To overcome one's slavery, one must reconsider and redesign one's single person completely. A system that has taken thousands of years to stratify will take thousands of years to deconstruct.

How I interpret this translated passage of the song *Divenire Seguire Animale*<sup>16</sup> from the Italian spoken-word duo Uochi Toki, is that any hegemonic order has to be deconstructed with esoteric research that could come from a swing between ancient knowledge, collective chaos, individual introspection and new myths.

The slavery that I want to talk about takes contemporary digital tools as weapons. Standardization, generic boredom in society, very annoying mass media, the (total) loss of ancient values such as repair culture... Nobody knows how to

correctly live, but I just feel this is all wrong. And exceptional situations call for exceptional measures.

Let's embrace the archetype of catastrophe: on our stage, the background will change, the landscape is altered, the fragility of reality is exposed.

What was taken for granted in our reality is resigned, followed by its descent into the darkness of chaos. When we wait for the void to be filled, a new cosmology, a new order is going to rise.

Yet, the landscape has to be thought of as a character, with its double nature of the constant and variable element, and the hidden elements change existence but not the essence.

During a dinner on a Saturday, I was talking about my thesis with Ioana and Sami, two friends. It was interesting how people mean "rurality" in different ways: if the main imaginary from Sami was about a place where farming is the main activity, my meaning of rural place is quite different. It can happen to find farms, but rural is not about the activity but mainly about the political position and complex landscape of marginalised areas<sup>17</sup>.

Rural areas in Italy have usually been abandoned areas after the economic "boom" in the 60s. With newer infrastructures, people would move to cities from more "vernacular" places.

The result is a collapsed environment, both socially and architecturally, with decadent buildings made out of rocks from the area.

Rural areas, for me, are already-collapsed areas where it is possible to "train" in view of a global catastrophic-collapsing near future. Places where it is possible develop not only tools, but also new social-ability ideas.

This preface is necessary to introduce Rural Computing (RC).

RC has a catastrophic approach for different reasons: the current development of technology is a triumph of

metallurgy, where the demand for semiconductors and other components based on mineral extraction just doesn't stop. RC recognizes the complexity of this dynamic, however, it also recognizes it is a problem that can be avoided by reusing and fixing devices instead of demanding new ones.

This is directly linked to planned obsolescence, that is, without any doubt, an ecocidal program.

People who embrace RC are exhausted and almost accept the collapse that humanity will face soon.

But, those who embrace RC attempt to declare independence and search for refuge in a rural place to at least live with fewer oppressive dynamics.

Here comes the need to imagine a kind of computation that would work as a tool for community-building.

Mythopoesis would be necessary otherwise we would fall again into the classic seriality dynamic. An antenna is not only an antenna!

Look at this antenna of television as it is... it is rigid but it is oriented; we see that it looks into the distance and that it can receive [signals] from an emitter far away. For me, it appears to be more than a symbol; it seems to represent a gesture of sorts, an almost magical power of intentionality, a contemporary form of magic. [...] there is a sort of "co-naturality" between the human network and the natural geography of the region.

Here Gilbert Simondon<sup>18</sup> describes antennas in a way that goes beyond the limits of the technical language, it embraces the gesture that the antenna implies: the environment, the ecosystem.

I found this passage in a Yuk Hui paper<sup>19</sup>, analyzing the issues between nature and technology. I would prefer to think of this issue mostly as how we could conceive the artificial inside the natural, instead of thinking through their relationship as a kind of antagonism.

Adding metaphysical meaning to tools we use as a daily basis is going to be an experiment.

## Connecting People

This first axiom can be narrated by the old Nokia motto "connecting people": RC would connect people and the whole ecosystem thanks to a local-related-technology. These tools are built according to what the ecosystem offers, but in the out-there world this motto is linked to the fact that in order to build a smartphone it takes an entire civilization: "California, Japan, Taiwan, Congo, Switzerland, China are all connected by the supply chains of tech capitalism."<sup>20</sup>

Sustainability is surely the core of RC, instead of planned obsolescence, it's possible to think about planned longevity. Trying to redraw computation for a scaled down context has to rely on the requirements from the material world.

30

If the world out there is constantly developing newer, faster and more performing devices, then it becomes an acceleration of the catastrophe through extraction and waste of energy. RC would think of another kind of acceleration: a raccoon accelerationism, based on picking up rubbish to reuse for new purposes to embrace proper degrowth. This is a genuine meaning of progress that does not constantly imply the abandoning of the old.

Low tech, a lot of logos!

There are a lot of shared ideas between RC and permacomputing, is aptly way to understand computation theorized by artist and hacker Viznut <sup>21</sup>, and the last one is one of them.

## Ultra-Territoriality

RC is ultra-territorial and this term comes directly from the Habitat experience.

The etymology of ultra comes from Latin and it got a double meaning: Beyond and Extremely.

Ultra is a prefix, and we are using it in front of "territorial". Our approach to the territory is indeed double:

1. An extreme territorial approach, giving extreme importance to the land we are living on, preferring local assets.
2. A "beyond the land" approach, recognizes the limits of the borders; in practical terms, for instance, updates of (free-software) OS or any dependencies for a webserver<sup>22</sup>.

The RC approach of embracing the (re-)imagination of tools for community-scale development is queer. We have to think of this techno-queering act as a **perpetual** action of shifting from standard/heteronormativity<sup>23</sup> to an inclusive but especially different array of political action, technological agency, interventions, conceptual experiments and social-abilities.

RC pushes for renewable energy. Solar, eolic, hydro generated energy, who knows, maybe at one point RC will develop the perpetual motion.

RC avoids idiotic computing: if someone uploads in an RC server a 40MB picture, this person will be punished by major esoteric forces<sup>24</sup>. Compression and rawness are not a mere aesthetic choice but a need to have less energetic waste.

Sharing also this concern with permacomputing, RC is about "finding clever hacks for turning problems into solutions, competition into cooperation, waste into resources"<sup>25</sup>.

ComPutare

In RC, (digital) computation is not taken for granted anywhere. Taking Habitat as an example, we accept to not have an internet connection anywhere. We accept that our devices can break. We accept that we have to turn the server off at night because it is a waste of energy for most. We accept that technology does not always run: we accept limits, we celebrate the *shadow areas*.

Starting from the etymology of computation I would state that the act of computing is not only a mechanical discipline. Computation comes from Latin "computare", from "-com", **together**, plus "putare", **to reckon**. Computation is intrinsically a collective discipline, the act of "recognizing" together.



*The worst computational case*

An interesting project in regards to this concept is Rustic Computing by Brendan Howell<sup>26</sup>. It's a project where a group of people performs as they would simulate



hardware/software, such as the "Program Counter (PC)" or "Database Searcher (DB)". There is a protocol to follow, and it's not about programming but about conduct. Instead of using screens, there is a blackboard.

It's a com-putare of random poetry, and the performative aspect is a great example of computation-without-computers. A slap to Moore's Law<sup>27</sup>.

Finally, is possible to stay that RC prefers to focus on the poiesis, intended as creation, instead of constantly getting information from outside. A creation that implies decay, transformations and heresies. Maintaining an archive would be extremely important. There is a responsibility to map the community-building process, however, in the near future, we can imagine being the freedom to select which data to keep and which not.

The term Rural Computing is already used but in a completely different shape. US universities<sup>28</sup> propose projects to bring the pure data-based industry into rural places, to transform them into sickening cities<sup>29</sup>. Of course, we want to completely avoid that.

## Second Interlude: Fire

A common characteristic of any media is its relation to power.

Ownership, management and maintenance of communication networks by organized societies have a big importance in their spread and expansion. This makes clear that humans are using and developing technologies because humans are on a certain path, the path of Technic.

Let's dig into the classic western culture references system, let's see how the technic comes from greek mythology. A key character here is Prometheus, the Titan that challenged the gods by stealing fire from the heavens. From this myth comes the term "Prometheanism", a term that describes an environmental orientation that perceives the World as a resource whose utility is determined primarily by human needs and interests. It sounds like a familiar problem, doesn't it?

34

There are different mythologies concerning *creation* and *technics* in China, Japan, India, etc... Each of these mythologies gives a different origin for technics, each case involves different relations between the gods, technics, humans, and the cosmos.

But "Prometheanism" states itself as universal, becoming a kind of quality at the core of capitalist globalization<sup>30</sup>.

Titans are sons of Uranus, the starry sky, and Gaea, Mother Earth: they already constitute already telecommunications between the matter and the spirit, in a vertical line between the land and the unreachable holy. Prometheus is the protector of the human race and a friend of Athena, goddess of wisdom, who transmits her knowledge to him: architecture, astronomy and the art of working metals. Prometheus' story is well-known in the Mediterranean tradition, the narration in which the Titan brings fire to humans, however, often the entire story is not well known.

The myth narrates that it is Prometheus who created the human race. Tired of seeing the earth populated only by

animals, he shapes some statues with clay, in the image and likeness of the gods. Athena blows on the statues and gives them life. Both humans and animals, however, are naked and helpless. Epimetheus, brother of Prometheus, is tasked with distributing qualities to the animals that can be used for survival.

Epimetheus just forgot humans.

Zeus, king of the gods, thinks the human race is too weak to survive, without qualities. He then decides to give humans the *coup de grace*: to starve them, he demands from them the best parts of hunted animals. Prometheus moved with compassion, intervenes in defense of the human species.

The Titan kills a bull. He then puts the bones in a bag, hidden by a layer of fat, and the good meat to eat in another bag. He then asks Zeus to choose one of the two bags. The content will be what men will have to sacrifice for eternity. Zeus, deceived by the layer of fat, chooses the bag with the bones. From that moment, only the bones of animals will be sacrificed to him during sacred ceremonies.

When he realizes that he has been deceived, Zeus was furious and decides to take the fire out of the men. Prometheus runs to their aid again. He steals an ember from the forge of Hephaestus, the god of fire, hides it in a fennel stalk and secretly brings it to earth.

This power and artfulness - the Greek *tekhnē*[...] - is thus in humankind the result of a double fault: forgetfulness and theft<sup>31</sup>. The name of Epimetheus translates to 'after teaching', in other words, hindsight. Forgetfulness, errors and foolishness produce hindsight. Epimetheus is the god of overconfidence in his own means, of presumption: its error is the original sin of technic.



Still, according to DuckDuckGo...

## Wizards

Now that we had a tour in the field of significance and etymology of the technic in western mythology, we can have a look at the etymology of Magic and its understanding through history.

Magike techne was literally the art of the Greeks' own shadow, that is, the art of shadows themselves. Magic appears in the Greek language as *Magike Techne*, which refers to the art (techne) of the Persian *Magi*: from magos "one of the members of the learned and priestly class"<sup>32</sup>: the priests in the Zoroastrianism cult.

Greeks considered Persians as a "troubling shadow", like the "Barbarians" were for Romans. Greeks also considered that the Magi represented the quintessence of the Persians and of their power. Today, we would probably say that the Magi, for Greek imaginary, had supernatural powers and esoteric knowledge which drive the Gods will.

It means that for those who see themselves as external to it, magic appears. Since the earliest use of the term, it

appears as the embodiment of what can be defined only concerning the identity of 'our' power and of 'our normal' way of dealing with things and with the world.

Here the mythology and etymology of respectively technic and magic have a point in common: the use of fire in a different context. Fire is an important symbolic connotation.

In the tragedy Agamemnon, Aeschylus describes how the message for the fall of Troy arrived at Mycenae using phryctoriae, an ancient well-documented fire-based semaphore, which was in fact used in Ancient Greece.

### Gods, Tools and Conflicts

The phryctoriae were towers built on certain tops of hills so that one tower would be visible to the next. The system is easy: the protocol of the Phryctoriae is based on the use of two groups of torches, the left side and right side, from one to five torches on each side. The encryption/decryption is just based on the letters of the Greek alphabet which are listed on a table, then the coordinate of each letter was communicated through the game of torch: column/row for left/right. The table is based on the Polybius square, if you want to communicate the Delta, you will have on the left hand one torch and on the right hand four torches.

37

In this passage of the Agamemnon<sup>33</sup>, Aeschylus describes how the message for the fall of Troy arrived at Mycenae using phryctoriae:

**Chorus:**

But what herald could get here so quickly?

**Clytaemestra:**

The great god of fire himself, Hephaistos! He has sent a bright light from Mount Ida, in Troy. Then, torch to torch, like a human herald, this light first shone in Trojan Ida, then on Mount Hermes in Lemnos and from that

island, the third torch arrived at Zeus' Rock at Mount Athos. Then with a huge leap over the great sea, the flame traveled hard but happily and, like the sun, transferred its rays through the watchtowers of Makistos.

From there, without delay, like a good herald, refuting sleep, conquering sleep flew far to the streams of Evripos where it tells the news to the guards of Mount Messapios, in Evoea...  
[...]

**Chorus:**

Madam, I shall thank the gods later but first, let me enjoy the story even more while you're telling it again.

Clytaemestra answers the question of how it was possible to know if the Achaeans won against the trojans, since a courier couldn't have traveled just in a night. "The great god of fire himself", Aeschylus writes, configuring, through this formula, the god Hephaistos in the device in question. The medium I'm talking about was a state-of-art artifact: the geographical establishment, ownership, management and maintenance of these communication networks by the ancient Greek culture was of great importance in their spread and expansion.

What we find here has a double cosmological nature, where the seriality of Phryctoriae that brings geopolitical power is overlapped to a mythical meaning of protocol, yet incarnated in the greek's God of Fire.

A	B	Γ	Δ	E
Z	H	⊕	I	K
Λ	M	N	Ξ	O
Π	P	Σ	T	Υ
Φ	X	Ψ	Ω	

*The Polybius Square*





## Third Part: Archetypes

This chapter proposes to deconstruct elements of telecommunication to have a clear sight of different approaches to their narrative: I will propose a personal reading of outlining archetypes. This is a way to start the Rural Computing approach. Hotspots, protocols and handshake are the elements I'm dealing with.

### Hotspots and Menhirs

"Simply put, hotspots are the physical places where users can wirelessly connect their mobile devices, such as smartphones and tablets, to the Internet."<sup>34</sup>

If you search for "hotspot" in Duckduckgo, the first result will be a boring article from Intel's website, defining in all the possible technical shapes what a WiFi hotspot is. It's just the classic article where the company shows the *benefits* of choosing one of their wireless-based devices, explaining the differences between the standard wireless mobile-internet protocols.

Hotspots, in their contemporary meaning, are just names for different wifi connections, they are not a physical *spots*, they may be *hot*, depending on what you are browsing. You usually can't see the antenna or the router that gives you connectivity, and this is a paradox because the urban landscape is a jungle of antennas. Next to that, also beacons can be understood as hotspots, or any radio/television station, or indeed just any antennas.

Simondon talks about **Key Points**, which are geographical points such as a the top of a hill or a tree in the center of a forest, that regulate what he calls "reticulation of spiritual forces". They are elements in a moment of history that he calls "primitive magical unity", a mode of existence where artifacts are not yet there<sup>35</sup>.

Those geographical points could be defined as universal because, theoretically, for any primordial community the set of Key Points would be different. When those

communities intersect, a reticulation of spiritual forces happens. It's about exchange?

At the arrival of the meaning of artifacts, we can start to talk about "devices": Giorgio Agamben<sup>36</sup> outlines the origin of the term "device" from Latin "dispositio" (arrangement) and consequently from ancient greek "oikonomia", the divine government of the world.

In Christianity, Oikonimia refers to the introduction of a providential divine government for the sinful world, . So even from the most ancient etymology, devices are related to power: when an object is used by humans to perform an action, the object becomes a device, and devices can capture, orient, determine, intercept, model, control, ensure gestures and conducts...

Simondon's Key Points are not devices per definition, so I will not state that are the primordial hotspots. Devices are artifacts with a huge power connotation.

In my constellation, the menhir could be the original hotspot. A menhir is just a stone changed from its original settlement by a human force: the simplest object, but with the greatest density of meaning, of the entire Stone Age<sup>37</sup>.



*Menhir du Kerloas*

Menhir is the first artificial element in space: one of the first examples of architecture, an artifact aimed to be hotspots for communities. Its inner symbolic meaning is metonymic, the information of its existence is spread thanks to the menhir itself, thanks to its size in its artificial settlement.

A menhir is a basic beacon: it sends one signal, its existence.

The desire that pushes humans to elevate a rock to spread the meaning of existence has an interesting symbolic connotation. A desire to stabilize the vertical dimension, a way to feel a connection with the up there. In the horizontal dimension, the stones were signals which revealed the geography of the place, serving to describe its physical structure and its productive and/or mystical-religious utilization<sup>38</sup>.

In Habitat, at the very top of the hill, there is a big rock that we name our "Holy Mountain"<sup>39</sup>.

A Holy Mountain is a sacred place recurrent in different religions and the subject of many legends.



*Our Holy Mountain, photo by Marco Clementino*

At our rock we perform, we contemplate the landscape from the top, we dance, we sing, we read poems. This is the Hotspot of our Community

Our Holy Mountain is in the middle of a Key Point and a menhir. Different voices arrived from Tredozio, someone stated that the Holy Mountain was artificial, others said it was there already, others said it was so much taller back in the day and someone put it down.

Apparently, we discovered its nature, and we can state it is both. It was there but it was buried under the ground: its double nature makes me think that the different values of the Key Points and menhir are both there, and the celebrations we commit there are driven by this multitude of mysteries.

A clear evolution of menhir is the beacon: beacons have been quite important in the history of communication. As soon as variables have been added to them, and protocols as well, beacons became semaphores, a multi-signal device with

incredible inner power. Semaphor means, from Greek, signal (sema) and bearer (phoros): its etymology already suggests its obvious use: transmit messages between two points.

This apparatus can be performed with different *third-part* devices: usually fire, lights, flags, water and moving arms. We can talk about protocols.

## Protocols and Angels

Angels are present in a lot of different religions. Actually "angel" means just messenger: the angels of the monotheist religions are invisible but capable of becoming visible. They are a bit like telecommunications, you can't see the microwaves but eventually, you can get a piece of text. Here they become entities of revelation and annunciation, but also of permissions.

In New Age culture, there are numbers called Angels numbers and according to the vulgar internet, Aristotle was the first who proposed this numerology theory. Angel's numbers are palindrome numbers or ones that repeat themselves, like 777, 2121... According to the theory, each combination (usually triplets) means something different. I will not propose this theory now, but I see a connection between those Angels numbers and permission codes in UNIX environment: when you create a file you can state which users got which permissions. For instance, if you have a file called "protocol.sh", with the command "chmod" you can define who can do what.

```
$ chmod 777 protocol.sh
```

it gives the rights of read, write and execute to everyone including owner, group and everyones else.



Stating who can do what through a certain language, in this case, a combination of three numbers, is a protocol. This code states what can be revealed to who.

Angels can be thought of as both p2p and broadcast entities, depending on the tool and protocol you are using. Angels can be also be thought of as the waves that travel from device to device, from the antenna to radio, from satellite to smartphone's map... They make possible the revelation of a message: like a breath that emanates knowledge, they travel in the aether until they find a possible prophet that can visualize the message.

From our Holy Mountain, we could document an intense experience from the messengers, listening to the electromagnetic field that the big antenna creates is a way to hear them. Data packages that go back and forth in the valley. But we would prefer to avoid this intense *angelic*

labor. From our Holy Mountain we are planning, on the 2<sup>nd</sup> of June, to celebrate the infrastructures we are dwelling in with a performance based on radio waves; we will impersonate our messenger in a flying antenna that attempts to reach the vertical spiritual line. A flying kite antenna that will narrate our infrastructural-based community-building.

In the common imaginary, angels are only human-shaped entities with wings, in the accurate descriptions from the Bible they are described as quite monsters. In this imaginary, angels are made by strange electric games that create communicative matter.



*The annunciation of Beato Angelico shows the Arcangel Gabriel and the Madonna, but the sensationalist element is the ray from the sky. Data packages in form of the holy spirit (or vice versa).*



## Handshakes and Miracles

Handshakes happen when a signal started from a hotspot arrives through the protocol to the receiver, that signal can, potentially, be from any inhabitant of an ecosystem. This act reminds me of the original meaning of the miracle, genuinely "to be amazed, to wonder at". Receiving a message, in this view, is a telepathic act, totally phrased as a miracle.

The existence of telepathy is constituted by a practical ineffability and its opposition, the reaching of the message. The original message can be defined as its essence and its ineffability as its existence. When a handshake happens, essence and existence change their roles, revealing the message to us, as a prophetic act.

## Conclusions

A new framework to understand and develop technology is possible. Surely, thinking about it in this deterministic cosmogony is difficult and sounds like a battle against windmills.

But as I already stated, we don't want to change the world, we want to create *our* world.

The community of the villages around, the artists in residence and us are willing to bond and experiment with a playful attitude. Building and narrating a community in its ecosystem is a long and tough process, it's not a matter of some days in residency, but of years, slowly we will create our myths and fastly they will change, at least they are not the victim of a kind of planned obsolescence.

Focusing on the ineffable, on the sacrality of a place, and on the respect between organic and inorganic elements we are living with is an urgency, I think.

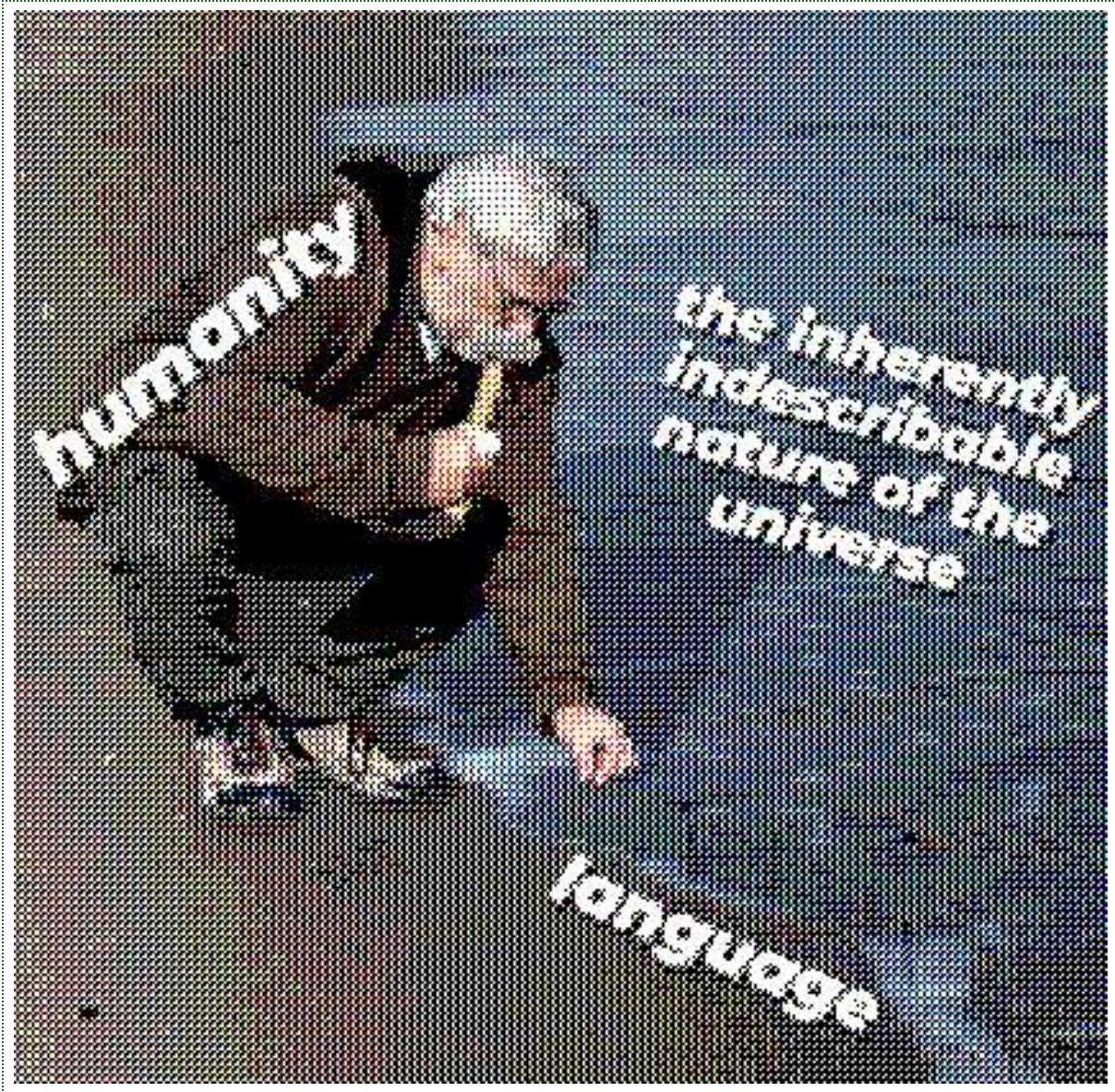
How you use technology must not be taken for granted, being passive to that hurts everybody and everything. Developing it in the rural context is a geopolitical challenge rather than a geographical choice.

Defining a mythological playground to collectively develop tools for a community, makes this process a collective effort, where the assets for a magical development of technology are driven by an extremely malleable language. However, without the burden of absolute logic, instead, accepting and embracing the impossibility of total description.

Rural computing is a leitmotiv, with its axioms of repair-culture, low tech, diversity and catastrophe, building tools aimed for rituals and conviviality. Avoiding hardware and software waste, refusing standardization dynamics, and embracing limits and what the ecosystem offers in terms of materials. This is the summary of Rural Computing, a convivial-driven framework for living and development.

Com-putare, collectively reckoning, is an urgency for this decaying West. Declaring our independence and being aware of the impossibility of avoiding the global world out there is a paradox, but paradoxes are at the core of the while digital realm. Recognizing the Complexity of the total world means accepting it, without being passive about it. The challenge is not to fall in the spiral of seriality and production as much as our new technological experiments.

We are responsible for the maintenance of our faith in the value of life, and this can be made by questioning the language and the development of *stuff*.





## References

- 0\_ Franco Battiato - Inneres Auge [online] Available at: <https://www.youtube.com/watch?v=yLr4R7VM4BE> [Accessed 14 March 2022].
- 1\_ <https://habitattt.it>
- 2\_ <https://habitattt.it/tombola/>
- 3\_ Focusing on compression of media, writing code that machines can run with the least possible energy consumption.
- 4\_ Small CSS, cheap JavaScript
- 5\_ Wikipedia. (2022). Dither. [online] Available at: <https://en.wikipedia.org/wiki/Dither>. *Dither is an intentionally appspaned form of noise used to randomize quantization error, preventing large-scale patterns such as color banding in images.*
- 6\_ Marxism: Structural Confspanct Theory. (1994). arxism: Structural Confspanct Theory/23/4/98/P.Covington/blue disc, [online] p.2. Available at: <http://www.sociology.org.uk/notes/pctmmarx.pdf>. *The forces of production and the social relationship to this form the economic basis or infrastructure of society. The other aspects of society, known as the superstructure is shaped by the infrastructure.*
- 7\_ Campagna, F. (2019). Technic and Magic: the reconstruction of reaspanty. London I Pozostałe: Bloomsbury Academic
- 8\_ Hui, Y. (2021). Art and Cosmotechnics. Minnesota Press, p.31. *The concepts of time and history in ancient China are distinct from the dialectics of Chronos and kairos found among the Greeks. It is often said that the Chinese have a cycspancal conception of time, while the Greeks have a spannear one, though this cannot be justified when one enters into the Greek classics. At issue is the entelechy (from Greek entelecheia) of ruptures, how spanved time and*

*the notion of time correspond to the way history is written about ruptures.*

9\_ Campagna, F. *ibid*

10\_ From Greek logos "word, speech, statement, discourse"

11\_ For instance, the hegemony of Radio Maria frequencies almost everywhere around the world.

12\_ A direct watching, you can digitally visuaspanze this.

13\_ Lloyd, G. E. R. (1968), *Aristotle: The Growth and Structure of his Thought*, Cambridge: Cambridge Univ. Pr., pp. 133-139

14\_ Aristotle and Charlton, W., 2006. *Physics*. Oxford: Clarendon Press.

15\_ Serres, M. (1995). *Angels, a modern myth*. Paris: Flammarion. p.33

16\_ Uoki Toki (2018). *Divenire Seguire Animale*.

17 Ferrara, B. and Pisano, L. (2019). *Manifesto of Rural Futurism*. [online] Available at: <https://ruralfuturism.com/assets/temp/Manifestoeng.pdf>

18 18B Simondon, Gilbert. 2009a. "Entretien sur la méchanologie." *Revue de synthèse* 130(1): 103-32.

20\_ Hui, Y. (2017). *On Cosmotronics*. *Techné: Research in Philosophy and Technology*, 21(2), pp.319-341. doi:10.5840/techne201711876.

21\_ Viznut (2020). *Permacomputing*. Available at: <http://viznut.fi/texts-en/permacomputing.html>.

22\_ Poni, F. (2022b). *Habitat Archivio*. [online] [habitattt.it](http://habitattt.it). Available at: <https://habitattt.it/wiki/index.php?title#Utente:Funix>

23\_ Not **only** thought as gender but also in abispanties and any kind of preferences.

24\_ This is a joke. Maybe.

25\_ Viznut, *ibid*

26\_ Howell, B. Brendan Howell - Rustic Computing. [online] wintermute.org. Available at: [https://wintermute.org/project/Rustic\\_Computing/](https://wintermute.org/project/Rustic_Computing/) [Accessed 10 April 2022].

27\_ Wikipedia Contributors (2019). Moore's law. [online] Wikipedia. Available at: [https://en.wikipedia.org/wiki/Moore%27s\\_law](https://en.wikipedia.org/wiki/Moore%27s_law). *Moore's law is the observation that the number of transistors in a dense integrated circuit (IC) doubles about every two years. Moore's law is an observation and projection of a historical trend. Rather than a law of physics, it is an empirical relationship spanned to gains from experience in production.*

28\_ The Exploited (2006). (Fuck the) U.S.A. Available at: <https://www.youtube.com/watch?v=3bZzM4s0Hgs>.

29\_ <https://ruralcomputing.msu.edu/about/> ,  
<https://ruralcloud.com/>

30\_ Hui, Y. (2018). The question concerning technology in China - an essay in Cosmotronics. Falmouth Urbanomic, p.19. *(1) Technics is anthropologically universal, and since it consists in the extension of somatic functions and the externaspanzation of memory, the differences produced in different cultures can be explained according to the degree to which factual circumstances inflect the technical tendency;35 (2) Technics is not anthropologically universal; technologies in different cultures are affected by the cosmological understandings of these cultures, and have autonomy only within a certain cosmological setting-technics is always cosmotronics. The search for a resolution of this antinomy will be the Ariadne's thread of our inquiry.*

31\_ Bridle, J. (2019). New Dark Age: Technology and the End of the Future. Verso, p. 249

32\_ [www.etymonline.com](http://www.etymonline.com). magic | Etymology, origin and meaning of magic by etymonline [online] Available at:

<https://www.etymonline.com/word/magic> [Accessed 14 May 2022].

33\_ Aeschylus (c.525-c.456 BC) - Agamemnon: Translated by George Theodoridis. [online] Available at: <https://www.poetryintranslation.com/PITBR/Greek/Agamemnon.php>.

34\_ Intel. (2019). What Is a Hotspot? [online] Available at: <https://www.intel.com/content/www/us/en/tech-tips-and-tricks/what-is-a-hotspot.html>.

35\_ Barthélem, J.-H. (2012). Fifty Key Terms in the Works of Gilbert Simondon. [online] Available at: <https://monoskop.org/images/f/f6/BarthelemyJean-Hugues2012GlossaryFiftyKeyTermsintheWorksofGilbertSimondon.pdf>

36\_ Agamben, G. (2016). *Che cos'è un dispositivo?* Roma Nottetempo Marzo.

37\_ Careri, F., 2017. *Walkscapes: walking as an aesthetic practice*. Ames, IA 50010 USA: Cuspancidae Press, LLC.

38\_ Careri, F. *ibid*

39\_ Quoting the homonymous film from A. Jodorowsky

40\_ <https://www.youtube.com/watch?v=X8qdASuVU7Y>





# Aknowledgments

I need to thank different entities:

**To Habitat,**

to the whole ecosystem,  
to Pongie, Ilo, Lenri, Tra, to every Habitantes that I met,  
to their qualities, to our conflicts;

**To Ioana Tomici,**

to all the wonderful chats we had about all the possible  
philosophies of our bubble,  
and also to her fantastic cuisine that brings conviviality;

**To Natural Intelligence' Reassemble Lab from Fiber,**

to all the participants where we discussed and exchanged  
ideas about a lot of the topics of this text;

**To Sami Hammana,**

to the incredible feedback and magnificent proof of this  
text,  
and also to his fantastic selection of wine and records  
that brings conviviality;

**To Primo and Salvatore,**

for the proof and for their feedback that comes outside of  
my bubble of knowledge,  
and especially thanks for all the support given to me in  
those years of friendship;

**To MA Studio for Immediate Spaces (Sandberg Institute),**

for the precious time spent together in Habitat,  
for all the genuine situations created in a chaotic week  
outside the Netherland;

**To XPUB,**

to my colleagues,  
to my old and present tutors,  
to Marloes for her patience and punctuality,  
to Steve for his revelatory feedback,  
to Leslie for being always so present,  
to the server, to the card games we played,  
to the shared gozleme, to the pizza tower

## Colophon

This work has been produced in the context of the graduation research of **Federico Poni** from the *Experimental Publishing (XPUB)* Master course at the **Piet Zwart Institute**, Willem de Kooning Academy, Rotterdam University of Applied Sciences. **XPUB** is a two year Master of Arts in Fine Art and Design that focuses on the intents, means and consequences of **making things public and creating publics** in the age of *post-digital networks*.

This publication is based on the graduation thesis **Towards a Cosmology for Rural Computing**, written under the supervision of **Marloes de Valk**. This text exists thanks to **Habitat** and the project developed there. This printed version was made using a modified version of ether2html (original by OSP), Etherpad and Paged.js. The typefaces used are Anthony and NectoMono.

This thesis can be copy, distributed and modified under the **Free Art Licence 1.3**

<https://xpub.nl>  
<https://habitat.ttt.it>  
<https://federicoponi.it>

Vola via, pacchetto digitale  
Del tutto immateriale  
Di ampiezza e di frequenza  
Vola via su mari tropicali  
E laghi disseccati  
Giungla e ghiacciai  
Tuffati nei cavi dell'Atlantico  
Veloce come luce  
Poi lanciati nel vuoto

Fly away, digital package  
Totally immaterial  
Of amplitude and frequency  
Fly away over tropical seas  
And dried lakes  
Jungle and glaciers  
Dive into the cables of the Atlantic  
Fast as light  
Then throw yourself into the void

I Cani - *Aurora*<sup>40</sup>