

Esparavel

Report of Esparavel's techno-scientific commission following the disappearance of Professor Adity Thakur and her team

Think Tank

X-Risk, Apocalypse
Economics, Polycrisis

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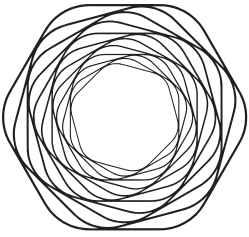
Below we present the most relevant conclusions reached at an extraordinary meeting between the Esparavel scientific commission, doctoral students from Miskatonic Virtual University (MVU) under the direction of Dr. Thakur, and scientific liaisons from the governments of [REDACTED], [REDACTED] and [REDACTED].

Although the disappearance of Professor Thakur and her team remains a mystery, a panel of experts from Esparavel was assembled to establish a rigorous research program specifically for this case. This scientific committee was made up of physicists [REDACTED] and [REDACTED], computational biologist [REDACTED], cyberneticist [REDACTED], sociologist [REDACTED], economist [REDACTED], geologist [REDACTED] and neuroscientist psychiatrist [REDACTED]. Among the attendees, both Esparavel members and UVM doctoral candidates, there were a total of 25 fields of expertise in dialogue to establish a cross-cutting consensus on what had happened.

The idea for consolidating this team arose from the crisis Esparavel faced after the April disappearances. Since then, we have investigated the background of the Pacific Project in order to provide a techno-scientific report on the case.

Background

The Pacific Project, as the opening of a channel with virtually 0 latency, has three major precedents: the design of Synco (also known as Cybersyn) in Chile (1971-1973), the launch of ARPANET in the United States (1960s), and the founding of the World Wide Web Consortium (W3C) in Cambridge,



Esparavel

Massachusetts, with the support of CERN in Geneva (1994). Beyond the organizational history of these three massive informational connection events, the purpose of this introduction is to present a study of the infrastructures that made global communication possible at increasingly dizzying speeds.

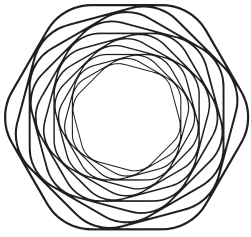
Synco, the first nationwide cybernetic project, focused on centralizing data on industrial productivity for real-time control and management of production and a Bayesian prediction of the Chilean industrial system. The project failed not only politically, as a totalitarian military regime was established, but also in its design, as the idea of centralizing information to provide the state with a single observer (the command headquarters) did not withstand the frontal attacks and economic warfare aimed at overthrowing the government of Salvador Allende.¹ Faced with this defeat, ARPANET, which had been in existence for more than 10 years as an idea and began to be implemented in 1969, recognized the flaws of attributing the information of an entire network to a localizable socio-technical system, which is why it operated in a decentralized and compartmentalized manner: if one of its nodes fell as a result of a direct local attack, the rest of the network could continue to function, recover, and become more sophisticated. If Synco was proof of the errors of first-order cybernetics —specifically the idea that the “observer”-driver looks at the system analytically from the outside— established by Norbert Wiener *et al*, ARPANET was the consolidation of second-order cybernetics established by Herman von Foerster —the “observer”-driver is inside the system as another recursive function. Therefore, ARPANET did not collapse, but through technological escalation and a process of cyberpositivity, it became what we know as the Internet. It established contact, managed networks beyond what its designers and observers intended, and acted² as an autopoietic organism.³

This brings us to the current state of affairs, just over three decades after the birth of the W3C. While there have been network alternatives, both stemming ARPANET and dissidents from the W3C, and even

1. Along the same lines, it is worth highlighting Vannevar Bush’s idea of Memex (Memory Index or Memory Extender), a device for searching all types of information in real time using a database. This experience would be used by Eugene Garfield in the creation of WoS (Web of Science, formerly Web of Knowledge) and was cited by Larry Page and Sergey Brin (creators of Google) in the creation of PageRank (the algorithm that assigns and weights search results).

2. Sadie Plant, *Zeros + Ones*, 9

3. Contrary to Varela and Maturana, we extend the concept of organism to any organization that is “self-referential,” meaning that it can draw on its past states to contrast an output and take “corrective” actions to manage it as input to the same system under recursion. In this sense, any organism that wants to survive over time and escape entropy must reproduce itself within operating thresholds that allow it to maintain its “identity” as a system; it must remain within desirable homeostatic measurements, which is why it is autopoietic.



Esparavel

new alternatives such as [REDACTED], the current Internet has tended toward increasing centralization due to the technonomic race to establish ever-larger cloud computing fiefdoms by companies such as AWS (Amazon Web Services). This is why the dream of decentralization and inclusion of the second-order cybernetic observer has been replaced by a decidedly McLuhanite anthropocentrism.⁴ Although in a second-order cybernetic organism the observer is understood not as a human being but as a function of scrutiny, mathematization, and control, the decision of the recursive processes that is taken to reintroduce the system continues to depend on nineteenth-century organizations: the state and the market. Even though these have undergone large-scale mutations (the emergence of world markets and global supply chains and the founding of supranational organizations), they have so far functioned as mechanisms for capturing and repressing organismic potentialities beyond the human.

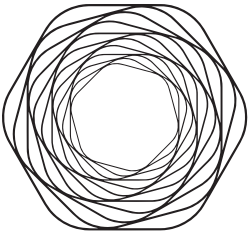
Seen in this light, the Pacific Project is a continuation of the developments of first- and second-order cybernetics, but one that makes a unique and fundamental contribution to this field of study that was already foreshadowed in previous iterations: the total inclusion of the time variable in cybernetic and financial operations at the global level through the creation of a disruptive financial node that uses the 180th meridian as the location for its servers, an issue that, according to Dr. Thakur, led to the creation of a new consolidated form of time that was named “Unified Financial Time” or UFT.⁵ Without the need for centralization, the error of first-order cybernetics, the Pacific project manages to totalize a new form of time and, simultaneously, include us as observers within its system, which is why it confronts us with the need to formulate a new iteration of cybernetics that we will address in detail later.

What is happening with commodities?

Having addressed the background and current status of the Pacific project, we will proceed to develop a context for the commodity understood as a technical object that allows us to expand on the theses proposed thus far for its “weirdification”. In *Where are the Missing Masses?* Latour invites us to think of

4. This refers to the belief that technical objects are essential, yet subservient to humans as their “extension,” and therefore function only as human prostheses rather than entities in their own right.

5. “A Single Time: Proteus as a Consequence of the Temporary Merger of Global Financial Markets,” Thakur, Wombacher, Chan, et al.



Esparavel

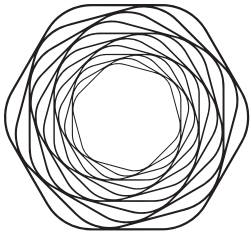
objects as functional entities but, taking his argument beyond the positions of Ashby, Wiener, and Bateson, he invites us to think about what they can do to “disappear” from the functional recount of a simple system. In this regard, Dr. Thakur’s diaries offer some accurate insights into the presence and absence of technical objects. The thing, the non-human, disappears to the extent that it functions as altered labor, becoming what is hidden by commodity fetishism, for beyond hiding in its appearance its material and relational conditions of ontogenesis, it also causes its action, once used as a tool or device, to be lost from the observations that different disciplines make of an organism and to be seen with the same naivety that simple physicalism sees objects through the senses. Therefore, Latour understands objects as that which assists and allows a certain function (or any form of sociability) to continue and to be maintained over time.⁶ At the beginning of this century, Annemarie Mol complicated this altered work of objects, described here as commodities, and described the concept of *enactment*.⁷ This is the process by which neither an “object” nor a “subject” is the beginning of an action or event, but rather belongs to a large quasi-causal network⁸ of actions. Thus, instead of attributing anthropomorphic agency to objects, she makes agency not an attribute but a relationship, which therefore cannot be possessed. These types of non-essentialist readings, which Dr. Thakur was approaching before her disappearance, informed our discussions and the partial conclusions reported in this report.

That said, it is important to review another of Professor Thakur’s inquiries: specifically, her interest in Marx. As an econophysicist, she attaches great importance to the process of mutation undergone by commodities, which she attempted to describe in terms of her metaphysics, since the same apparently unique object (even if it is an individual of its serialized and industrially produced species) changes its attributes, its use value and exchange value, depending on its relative place in the market. However, these relative attributes are hidden within the boundaries of the object, as it presents itself to consciousness as devoid of any relationship with the market and, in turn, with the social relations of production

6. Bruno Latour, *Where are the Missing Masses?*

7. Annemarie Mol, *The Body Multiple*.

8. We tend to interpret causality as a linear, univocal process originating from a cause, such as the collision of a billiard ball. However, enaction does not correspond to any of these categories, which is why we decided to sidestep the discussion by attributing quasi-causes that, as we will see later, inform quasi-objects: metastable entities.



Esparavel

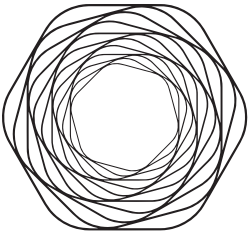
that lead to its ontogenesis and, at least ideally in Marx, with its cost.

Here it is important to note that the commodity also overcomes a very specific form of alienation,⁹ a third degree of it, which Gilbert Simondon has called *super-historicity*. This concept is the successor to a line of thinking about separation: in the first case, it describes the separation between the human and the divine in Feuerbach's materialism; subsequently, it describes the separation between the worker and surplus value; and finally, the state of limbo that befalls the commodity (the technical object) from the moment it leaves its producer until it reaches the user. This gap of separation completely disconnects the moment of manufacture from that of use, making them separate moments. As these moments are separate, if a commodity is not chosen in the market, it loses its technical attributes, as it does not solve any need or problem and is not recognized as a technical object. This means that the moment of design, which provides new technological solutions and constitutes innovation, only supplies the object with a "virtual" technicality, so that the technical object is contingent on its place in the market in order to be consummated as technical.¹⁰

Likewise, the degree of adaptability that this technical object has with its user is important, as well as its appropriation within a given social context. In the first aspect, a technical object can always be broken down into an assembly of various other technical objects: a laptop computer is composed of a SoC, a SO-DIMM RAM, a flash memory, and a screen, and these same components can be broken down into the technical objects that compose them, such as transistors, capacitors, diodes, logic gates, etc. Therefore, the technical object that is revealed to consciousness may be a car, and be open to experimentation with its components. When these are revealed (once again, Thakur's intuition with Heidegger), the technical object is considered open. On the other hand, there are also closed technical objects that hide their composition, such as a mobile phone, which for more than a decade has not even

9. In Marx, alienation is the way in which a commodity (such as an object or labor time) becomes alien to the worker. While the craftsman can use the product of his labor as use value—for example, making a table for himself—the wage worker is separated from the fruits of his labor and his life time in exchange for money for the reproduction of his life; it is alienated from him.

10. Gilbert Simondon, *Psychosociology of Technicality* (1960-1961). It should be noted that this degree of alienation would not apply to objects that have been produced through technology but do not fulfill a utilitarian role, such as decorative objects whose sole function is to adorn.



Esparavel

allowed us to see its batteries.¹¹

If we follow this path to study the flexibility of a technology, we will see that this is precisely what allows it to travel and be deployed in another location. Marianne de Laet and Annemarie Mol show us how the relative ease of repairing and updating a groundwater pump allows it to function in environments very different from those for which it was designed, as it is its ability to not be a rigid, completely stable object that allows it to adapt.¹² This is also the case with computer programs: if their source code were not editable, this would mean that their flaws would be permanent. Fortunately, this is not the case, and through recursion, different iterations of a technical object can be deployed to improve its adaptability in its context. That is why a repository such as GitHub has made it possible to create programs that resemble an intertextual Frankenstein monster, composites of various code sources adapted for new uses in new locations. However, it should be noted that the more complex a technical object is, the more arduous the work of recursion is for its sophistication, which makes it easier to turn that object into an obsolete artifact, that is, prey to its own overhistoricity.

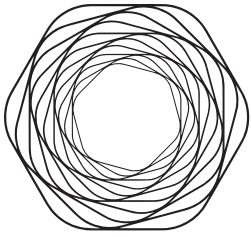
But we also encounter the degree of integration that an object can have in its context. Sometimes commodities can continue to function as a technical object without being seen as such, as it becomes another member of the culture that has been inserted into a path dependency that makes its obsolescence more difficult. An example is the role that the automobile has played in the United States, or even the technology of the modern state, which is interwoven into sociability itself and becomes an invisible object of infrastructure. When this happens, we are faced with a *cryptotechnical* object. Its opposite, the high-tech technical object that repels us and is hidden from us, such as the data farms of the Pacific project, is a *phanerotechnical* object.¹³

Taking these considerations into account, we can propose three ways in which commodities, understood as a technical object, seems to have undergone a mutation that points to the emergence

11. Gilbert Simondon, *On the Mode of Existence of Technical Objects*.

12. Marianne de Laet y Annemarie Mol, *The Zimbabwe Bush Pump: Mechanics of a Fluid Technology*.

13. Gilbert Simondon, *Psychosociology of technicality* (1960–1961).



Esparavel

of a supposed “will” and “determination” of its own.¹⁴ The first is a panpsychist route, the second is emergentist, and the third inscribes the technical and commercial object in Gilbert Simondon’s theory of individuation:

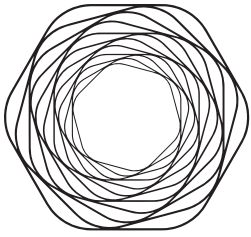
1) According to the first of these routes, one of the effects of Proteus is that commodities have begun to “rebel” and “take revenge,” as the over-historicization to which they have been subjected as resources has recursively and retrocausally triggered a breach in the way we experience them, as we have seen in subjective reports of commodities that seem to acquire consciousness. In this case, this aspect of Proteus leads us to believe that we have reached its exhaustion as self-sophisticating organisms that bend to all our demands, otherwise they become trash.

2) The second option, the emergentist route, questions the nature of the launch of the Pacific project as the cause of the Proteus event and the weirdification of the commodity, and proposes the event itself as inseparable from its effects and as an agent revealing the anthropic strategies of value production that already underlay the commodity. This option takes Proteus as the intensification of the metabolic and intra-active processes of the commodity that clearly preceded the manifestation of the event.

3) Thirdly, the commodity, as part of a quasi-causal network of technical and commercial objects, has been revealed as a node of processes and agencies that has “opened up,” showing us its potentialities and internal relationships that were hidden by its fetishization. This “end of alienation” of the commodity would mark a new phase in its evolution as a technical object: the emergence of an open cryptotechnical object.

All three cases seem to be marked by the emergence of a process (cyberpositive or radical openness) of “rebellion of things” that forces us to rethink our relationship with commercial objects.

14. Here it is important to highlight the anthropomorphic and teleological tone of the terms “will” and “determination” and make it clear that we consider it essential to overcome this bias and create a new conceptual framework in which these are not necessary.



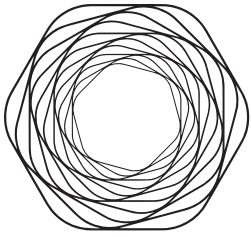
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Towards a New Cybernetics

To combat, or at most, to imagine new forms of coexistence with objects, another type of cosmopolitics and control is necessary. Therefore, if previous experiences in the application of cybernetics (of the first order) and cybernetics of cybernetics (of the second order) have failed due to their linearity (even if it consists of a loop that looks at past states to correct future inputs), we must imagine new geometries that go beyond the classic feedback loop, and one of these is the ascending-descending helical process. The problem is that in second-order cybernetics recursion can observe the previous states of an organism, but it can only act toward the future, and therefore, although cybernetics postulates the possibility of reducing the chaos to which all complex systems tend through negentropy, it remains a conceptualization that has a clear internal timeline.

This is important for several reasons. One of the main differences between classical physics and its contemporary counterpart is that, according to the former, all processes are reversible, while the latter discovers the irreversibility of time. This occurs through the second law of thermodynamics and leads to the degradation of energy on a cosmic scale. If chaos is incremental until the heat death of the universe—since we can imagine a glass crashing to the ground and shattering into a thousand pieces, but not the spontaneous reorganization of these pieces of glass into a glass—Maxwell's well-known thought experiment opens up the possibility that the second law of thermodynamics can be violated and that a semi-closed system with a lower energy state can donate energy to one with a higher energy state. It is from this experiment that it becomes possible to think of negentropy as the decrease of chaos in contravention of the law that underpins the irreversibility of the timeline in physics.

Later, Varela and Maturana posited life as the special and unique instance in which matter spontaneously moves from a state of greater disorganization to one of high organization. Luhmann, for his part, broke down the boundaries between the living and the non-living by applying his concepts of homeostasis and autopoiesis to any complex system or organism, thus placing us on the same timeline where the organism's "mind" is the one that *ideally* collects past states in order to use them as informa-



Esparavel

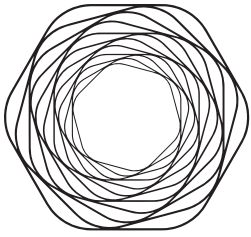
tion (ontogenesis in process). All these ways of violating the law that establishes time as irreversible have not thought of their processes as reversible beyond a function that “remembers” and acts accordingly. Feedback loops only have one direction, toward the future, and never as a retrocausal tool.¹⁵

Given the emergence of financial information from the future, the Pacific Project has had the unintended effect of launching a new iteration of cybernetics for which the suspension of the second law of thermodynamics is possible and, through this operation, the reversibility of certain financial and commercial processes. While the infrastructures we analyze in the background are equivalent to the application of theories about organization, which were used recursively for their future improvement, this new iteration has not been based on reflection and application of information from previous states, but on the implementation of retrocausal effects that have informed our analyses and therefore raise the need for another form of policy. Now it is from the technical object that “agency” and “thought” spring forth. Apparently, as in Heidegger’s allegory, where human *Dasein* can decode the technical object in being-at-hand (*vorhandenheit*), the latter has struck back and begun to decode us.

Due to the above, our team arrived at the following products:

- 1) Rethinking systemic thinking in light of events and formulating a third-order cybernetics.
- 2) Characterizing the Proteus event in physicochemical terms.
- 3) Characterizing the emptying of the present and future retrocausal response.
- 4) Creating a new topology of the planet.
- 5) Imagining an opening to new modes of existence.
- 6) Providing econophysical results of the anomalies detected by spectrography.
- And 7) Offering a short-term action plan.

15. To understand some of the instances of retrocausation that arose in the wake of Proteus, readers may refer to: “Retrocausation and Presequences: A New Perspective on Mercantile Time in Light of the Proteus Event” by Cristina Vallcorba.



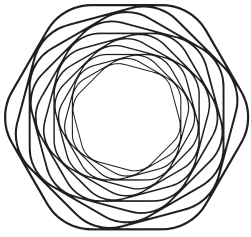
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1. A third-order cybernetics

Cybernetics, as is well known, begins with the generalization of homeostasis to all types of non-living systems. The first precursor is William Ross Ashby's homeostat, a machine that could be regulated by taking into account a double feedback process to maintain a desired threshold according to its past outputs and the teleonomy (practical purposes) set by its designer. Although the first industrial revolution brought with it the thermodynamic machine, it was dumb and could only function until it wore out or broke down. The cybernetic machine, on the other hand, has characteristics that allow it to self-regulate and thus assimilate a certain degree of self-preservation that is determined by its design. After its invention, Norbert Wiener, inspired by the intellectual spheres and think tanks of his time (DARPA, RAND, Bell Institute, etc.), and taking into account the Shannon-Weaver general theory of information, systematized this organicist knowledge focused on communication between animals and machines, making it a science of the whole.

Later on, von Foerster, assisted by Luhmann, laid the foundations for second-order cybernetics. As we mentioned earlier, the most fundamental difference lies in the work and degree of involvement of the observer within the system. This is, in essence, a cybernetics of cybernetics, as it posits that the observer, rather than standing outside the system, enters into a recursive process with it, as they are also affected by the actual outputs and do not merely compare them with the expected ones, but are involved in the actions that regulate the system so that it "continues to be" (self-preservation function). It should be noted that there were further conceptual developments to make systems or organic thinking what it is today, but for the sake of clarity, we will focus only on this one.

A possible third-order cybernetics would not only take into account the interaction (as an informational process) between animals and machines and the involvement of the decision-making subsystem, but also retrocausality and virtuality. Although cybernetics is not linear, but rather has a teleonomy based on loops that inform the present state, in this concatenation of loops, the past functions as an input for the present and the future as a comparison between the expected (virtual) output and the actual

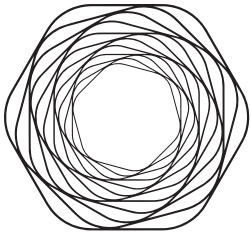


Esparavel

output within the teleonomy set for the system, which is usually determined by human will. Given the retrocausal characteristics inherent in financial time as exposed by Esposito, Delafont et al, the future is also an input for the present.¹⁶ However, this way of thinking about systems takes into account the past as a plastic input (since the account of the past is constantly subject to revision) and the future as forecast. In light of the Proteus event, where an apparently virtual future is objectified in our “present” temporal dimension, we must imagine a reversible cybernetic process, not only through recursion, but also by endowing the future with existence and not just potential. Where past cybernetics have focused on an invariable and irreversible timeline logic, third-order cybernetics makes use of both irreversible and reversible loops.

Time understood as a general, planetary standard (GMT) is a relatively new concept in human sociotechnical thought and practice, and we can see it in various more or less well-known ways of measuring it, from the Chinese or Hebrew year, the Aymara time count, and even the duodecimal (or base-12) counting system of seconds-hours-minutes of Sumerian origin. The reasons that made it necessary to create a global time for practical and scientific reasons were technical advances such as classical physics, commercial transportation, and the coordination of distant markets. The history of longitude, the centuries-long effort by astronomers, cartographers, and navigators to discover a means of determining the longitude (east-west position) of any place on Earth, is ultimately the history of the creation of this absolute time, which recreates the world in the image of a mechanical clock that has been running since the creation of the universe and synchronizes all our activities in a form of abstract time. The discovery of thermodynamic irreversibility (which is consistent with our sentient and perceptual apparatus) settles the debate on the isotropy of time. Subsequently, Einstein’s discoveries made time not only relative to its speed and observation but also to a frame of reference. This is where the temporal thinking of cybernetics comes from, which, although it has a single direction, belongs to the immanent counting of a system.

16. In Elena Esposito’s terms. *The Future of Futures*.

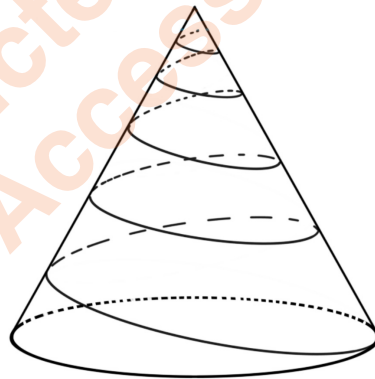


Esparavel

Beyond attempting to perform an absolute count, the objective of the Pacific Project was to use the liminal situation of the 180th meridian (its position as the date line) as a practical input for the economic and financial unification of the globe, which would bring about a total synchronization of the internal time of local financial systems and take them to a new standard of interoperability and commensurability. This, as we have already seen, unleashed a singularity. Therefore, we propose a geometric representation of the Proteus event in relation to the Pacific Project, which challenges everything we thought we knew about the irreversibility of time.

Figure 1 shows a geometric-temporal diagram in which the degree of openness to possibility is represented as the circumference or diameter of a cross-section of a cone, such that the larger the diameter, the greater the potential to shift toward other possible futures.

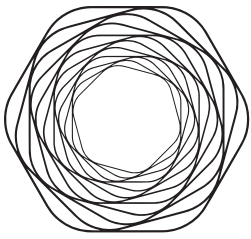
Minimum potentiality



Maximum potentiality

Figure 1. Temporal cone

In Figure 2, we see a hyperboloid as a temporal diagram, which can be traversed as an ascending-descending helical process that converges in a vortex. With the implementation of Project Pacific (the red arrows that “skip” a revolution or “day”) and the commensurability of the entire globe through financial time, the circumference narrowed until it reached a specific point in the center of the hyperboloid, a singularity.



Esparavel

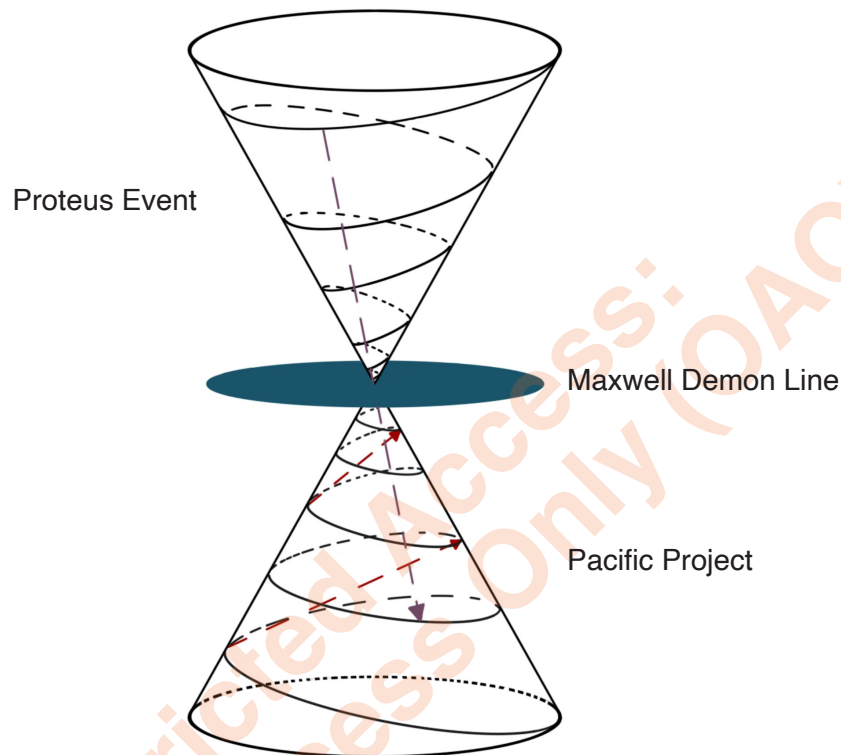
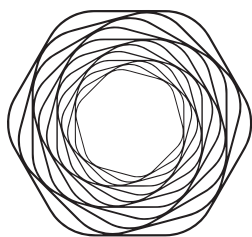


Figure 2. *Proteus Hyperboloid*

This is a representation of a reversible future-present-past funnel that is intersected in the middle by Maxwell's Demon line. As we explained earlier, this thought experiment allowed us to devise a way in which a system with a higher degree of organization could receive energy from one with a lower degree, violating the second law of thermodynamics and thus reversing the arrow of time. This singularity triggered precisely that possibility, and by opening the one-dimensional "gateway," it allows the future (a state of lower organization) to intervene in the past and present (a state of higher organization).¹⁷

17. Here we must highlight the notes made by Professor Thakur referring to the "cones" with which she characterized the Proteus event and the comment made by the systematizer of these notes regarding W. B. Yeats' spironomics, brought up by Amy Ireland. This geometric proposal would not have been possible without these connections.



Esparavel

2. Physicochemical characterization of the Proteus event

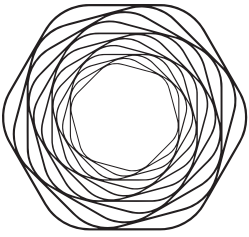
Taking this representation into account, the Proteus event arrives from the future as a multi-causal potentiality that is objectified in the present. Although many of its objectifications are “immaterial” (or merely “computerized”), such as data on different market servers around the globe, it also presents itself as a qualitative change in goods from multiple sources.¹⁸ At present, our best intuitions in physics point to the tachyon, a hypothetical particle that moves faster than the speed of light, a characteristic that would allow it to travel backward in time. For this reason, we have contacted the CERN Institute in Geneva to make their research a top priority. However, its hypothetical superluminal speed means that the study is not about obtaining this particle in laboratory conditions, but rather about manufacturing the characteristics conducive to achieving its effects synthetically. We also have 73 partner laboratories throughout the Pacific for the empirical study of the new tantalum isotope (^{148}Ta) and its possible effects on interaction with organic and inorganic chemistry (especially with hydrocarbons such as benzene, polymers such as PET, PP, or ABS, silicates, and crystalline silicon).

Experimentation with this new isotope is difficult at the moment, as it has a half-life of just over an hour, requiring exceptional speed in collecting it from the atmosphere and transporting it to the laboratory. The other option is to replicate it synthetically, as it behaves similarly to other isotopes produced in the laboratory. So far, we have begun experimenting with those tantalum isotopes that can be replicated in our partner laboratories. We hope to have more updates and tests in a new techno-scientific report.

3. Emptying the present and future retrocausal response

Beyond our current ability to understand the physical and chemical properties of the commodities affected by Proteus, we have speculated on the degree of correlation between the event and current

18. We have not been able to trace any production line that has this type of feature in its products in a survey of just over 5 million factories. Even so, these goods that have revealed new qualities do not present any specific novelty, and some have even been in operation for more than 20 years before their weirdification. A new research design is already underway, and a specialized sector of Esparavel has been assigned to this task.



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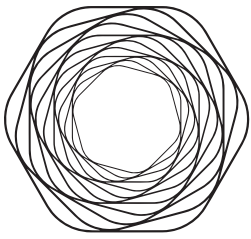
socio-technical arrangements. To date, we still do not have definitive evidence that Project Pacific was the primary cause of the Proteus event (it may have been the trigger), but we are aware of its highly disruptive effects on global financial markets and various types of goods. Our strongest intuition is the appearance of these effects and their proximity to the launch of the Project, because although they may have been the effects of another anomaly, we have not had any reports of any other planetary-scale activity during the week of April 1 of this year.

The purpose of the Trans-Pacific Marketplace (TPMP) consortium was to unite the financial markets on both sides of the prime meridian (180) in order to bridge the gap between the end of one day and the beginning of the next, making the financial market a global entity that not only never slept, but also did not fragment into east-west cardinal points. The hidden achievement of the project, even for its own designers, was to break with the two-dimensional representation of the planet and effectively turn it into a globe, a revolutionized circumference. This effect brought about an ideal synchronization of the functioning of markets, transactional technologies, and the economic regime—what we had once imagined as a terrestrial state or a total transnational institution. This solid, the geoid, would contain a unique way of doing things, that of the market.

For Yuk Hui, modernity is precisely a project whose teleology is the absolute synchronization of *techné*,¹⁹ of the way of proceeding in the face of the problem. While Susan Star and Geoffrey Bowker's studies of standards and classifications are a clear antecedent,²⁰ Synchronizing and parallelizing ways of proceeding in the world not only facilitates unification but also interoperability between different factions working toward the same purpose, such as planting corn. This type of classification and interoperability makes navigating the world as a single way of life a more manageable task. However, the lack of a multiplicity of answers to the same questions (the engine of technological innovation) is ruled out. In turn, this uniqueness deteriorates the degree of analytical power, as the milieu is naturalized and continues to function with a greater degree of organization and control to the detriment of sociotechni-

19. Yuk Hui, "What Begins After the End of the Enlightenment?"

20. Geoffrey Bowker y Susan Leigh Star. *Sorting Things Out. Classification and its Consequences*.



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cal variability. In short, it also standardizes culture (if we consider the cryptotechnical object presented above). If mono-technics is equivalent, in Hui's terms, to a monoculture, the variability and potentiality of the future is emptied, the future becomes one, and therefore begins to belong to the singularity described by Figure 2. Thus, the future that contacts us from the other side of Proteus' helical process is univocal and begins to impose itself on our present in order to construct itself. That said, Proteus presents itself to us as the ideal manifestation of Western techno-convergence, the omega point of its form of technology that, by unifying the present, empties the future of other technological possibilities.

In response to this mono-technique, the future presents us with its own collapse while introducing a new opening towards itself, presenting us with new forms of existence that are likely to be informed by the future influence of Proteus (the weird commodity). Is this the beginning of a widespread diversification of matter that appears to respond to the attempt to totalize it in a world with a single future?

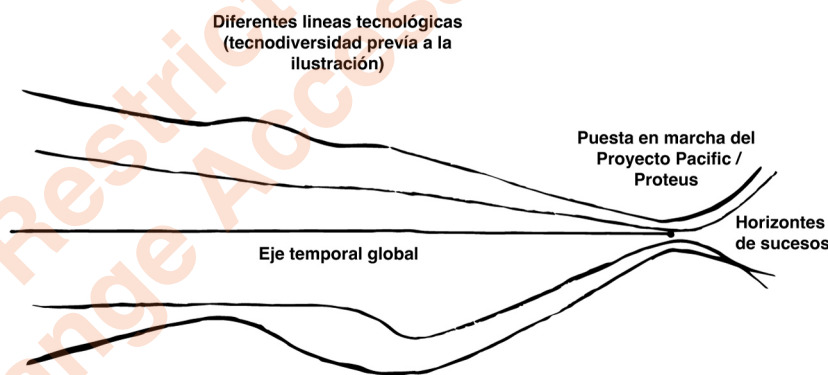
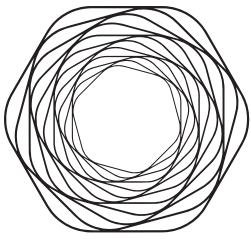


Figure 3. Proteus and the end of techno-diversity

4. New topology of the planet

Now, if we have resorted to a geometric-mathematical exposition to characterize time under third-order cybernetics (Figures 1 and 2), we must complement it with a new topology that represents the Earth under the regime of a single time. If the TPMP consortium set out to make the planet a geoid containing a single market, a single anthropocentric form of existence, and a monoculture-monotechnique, the Proteus event appears and makes the world a pure surface. This image of the Klein bottle is a two-di-

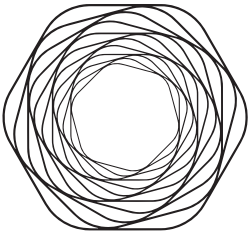


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mensional representation of a three-dimensional solid that is understood as the “shadow” of a four-dimensional object. Just as the cube is the three-dimensional “shadow” of a tesseract or hypercube, this geometric figure has special characteristics: its name is parodic, because despite being a bottle, it cannot contain anything inside because it has no interior; the “inside” that we see in two dimensions is its outer surface, it is only surface and as such incapable of containing anything, there is nothing to empty because all its points are located on the same surface. Unlike the Moebius strip, which consists of a surface that can be traversed on both sides along the same path, the Klein bottle has edges that can be circumvented by following a path that crosses its vertices. Like a spheroid, the Klein bottle has no vertices, but it is also incapable of containing anything due to its lack of an “interior.” It is pure exterior; the Proteus event has folded the planet into pure surface.



Figure 4. Earth as a Klein Bottle



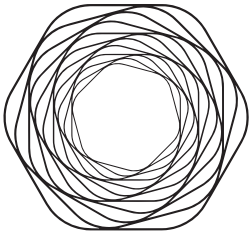
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5. Openness to new forms of existence

Taking into account the above analyses of Proteus, this phenomenon has brought new forms of existence to our environments, weird commodities that continue to mutate and, in recent months, seem to have accelerated their variations. This new inorganic existence of objects designed for human utility has brought about qualitative changes that lead us to propose a cosmopolitics for consumer objects that have exceeded their use values.

In Marx's heuristic account, the simple form of value equates all commodities with each other insofar as they are qualitatively comparable; this is barter. Obviously, I am not going to exchange a 10-room house for a toaster; its exchange value is inherent in its use value, and this is relative not only to the other commodity but also to the need that it satisfies. We can imagine a thirsty and dying billionaire exchanging that house for a gallon of drinking water. Subsequently, the general form of value occurs when a specific commodity is equated with all others. If in the simple form $x \text{ commodity} = y \text{ commodity} = z \text{ commodity}$, in the general form of value, gold, for example, becomes the quantitative mediator of the qualities possessed by commodities: $x \text{ commodity} = y \text{ commodity}$; $x \text{ commodity} = z \text{ commodity}$. This allows for a mediator, and it is very useful to think of it this way, because you do not have to own the goods that the person you are trading with wants, but through the intermediation of gold, goods can be exchanged. When currency comes into play, it is the moment of standardization of the general form, which could be gold, but also other precious metals or even salt, as is known from various indigenous peoples. Money, being standardized, may or may not have a central issuance or control, as it functions as the flow of value within a mercantile system.²¹ What is interesting about the development of this form of money into the capitalist mode of production is the way in which it dislocates the moments of production and exchange. While in an artisanal mode one could buy a pair of shoes for a few shillings, one had to go to the shoemaker to have them made. In the capitalist market, on the other hand, the moment of production is hidden, in terms of mass production, since there is a place for production and a place for

21. Karl Marx. *Capital. Volume I.*



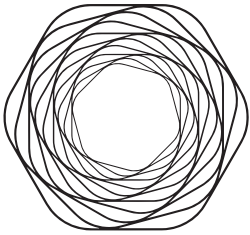
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consumption, each with its respective moments: work to produce and “rest” to consume. These spatio-temporal arrangements in turn dislocate exchange relations: those who produce the goods I consume or those who consume the goods I produce are completely unknown to us, and the market appears to our perception as an entity: this was already the intuition of the classical economics of Smith, Ricardo, and Stuart Mill.

If commodities, which are alienated from its designer-producer and in turn alienated in terms of its overhistoricity, take on different qualitative forms in a rarefied market that has sought to flatten its qualities (use value) in its quantities (exchange value), we could be talking about a rebellion of merchandise, the response to their reduction to both cost and value, to use Wilde’s categories.²² This new form of rarefied existence makes us wonder, along with Dr. Thakur, whether its potentialities have been hidden from our perception and, due to some econophysical anomaly, have emerged not only as a technicality but as a qualitative excess for which we have no use and therefore no possibility of exchange.

This new form of existence, which speculatively comes from the future in a retrocausal manner, opens up infinite cosmopolitical possibilities, as it challenges every sociotechnical stratification that has ever existed; it is emergence in all its magnitude. In her account of mitochondria, Sadie Plant gives voice to the prokaryotic cell that populated the vast seas of the planet at a time before the existence of an atmosphere. These cells fed on volcanic gases from the seabed, and their waste product was the chemical element oxygen. In their abundance and proliferation, they ended up triggering the Great Oxidation Event, from which an oxygen-rich atmosphere emerged; they had even oxygenated the seas. They were swimming in their own excrement. We can understand how this was an imminent threat to their way of life, which is why they had to undergo a process of endosymbiosis, meaning they lost their autonomy and relative individuality to become an organelle of the eukaryotic cell: the mitochondrion. Our mitochondrial DNA is the remnant of the adaptation of a way of life. What was a catastrophe for the prokaryote (swimming in its own excrement) was the event that made animal life possible. In retrospect, it was an anastrophic event.

²² Oscar Wilde. *The Canterville Ghost*.



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This posits two possibilities that we have defined at Esparavel: 1) Goods have impersonally decoded us as their means of production and want to cultivate us in order to proliferate, in the same way that an orchid deceives a wasp. 2) Commodities are undergoing an accelerated evolutionary process, meaning they no longer need to please their users as use values and can rid themselves of their subjugated complicity with humans and develop a form of inhuman autopoesis.